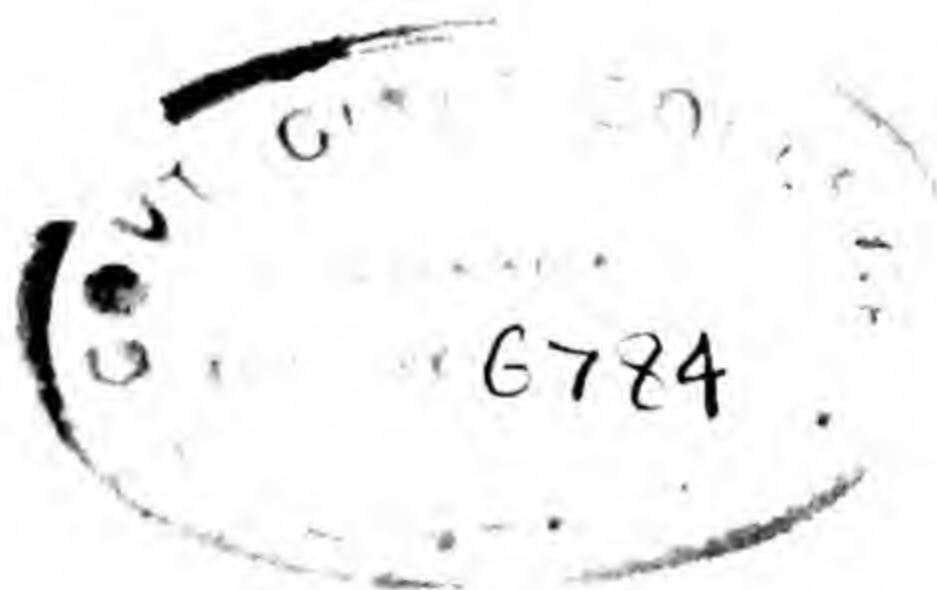


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EDITED BY LEONARD CUTTS

# THE HOUSEHOLD DOCTOR





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# THE HOUSEHOLD DOCTOR

By

S. KING HUTTON

M.D., Ch.B. (Manchester)  
D.Obst.R.C.O.G.



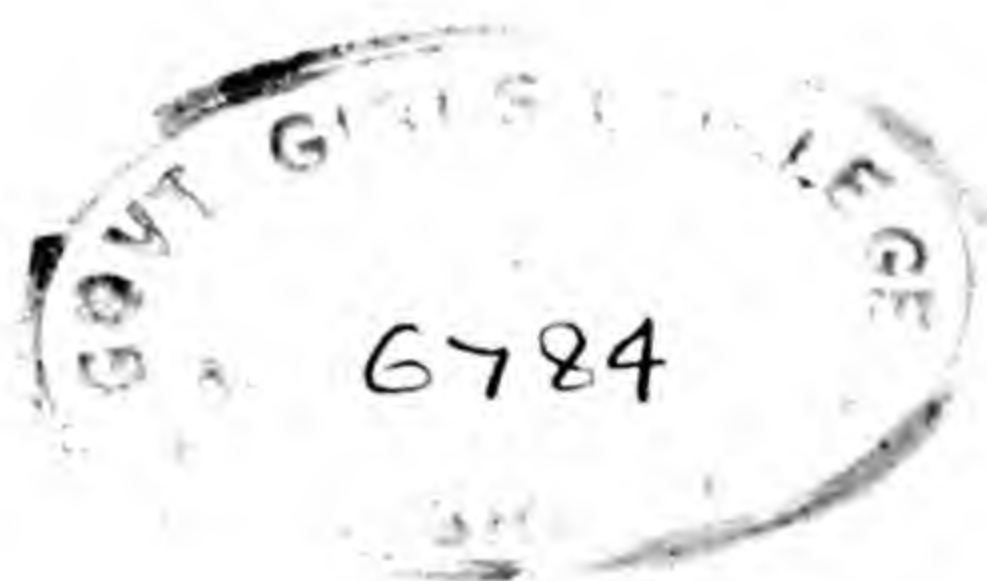
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## ACKNOWLEDGMENT

MANY friends have helped me in the making of this book, by suggestions and by criticisms, and to them all I offer my grateful thanks. My greatest debt is to my wife, whose experience has been most helpful in the writing of the chapters on nursing and infant management.

A special word of praise is due to Mrs. Lucy Geddes, who has enlivened the pages with her excellent illustrations.

Lastly, I wish to thank my Publishers for their consideration and care and patience.

THE AUTHOR.

## A NOTE ON THIS BOOK

THE aim of this book is to teach people to be healthy, while at the same time offering some advice if sickness or accident should befall. For this reason the writer concentrates on health first, and sickness last, thus reflecting the attitude of all healthy people, and seeking to avoid the pitfall of gloom inseparable from unrelieved study of sickness.

# PART ONE

## SOME CHAPTERS ON HEALTH

### CHAPTER I

#### THE BODY WE LIVE IN

BEFORE you can understand health and illness, you must know something about the body in which you live.

That you can see yourself in the looking-glass; that you can stand and walk; that you can think and feel and understand—all these are signs of the life of various parts of our body hidden beneath the surface.

Each one of us is built within and around a bony framework; there are joints in this framework or skeleton, and on it are arranged muscles and sinews; and thus we have the means of standing upright, and of running and walking and working; within it are complicated sets of what we call "organs" and "systems".

The chief systems are the Alimentary, which deals with food; the Respiratory, which deals with our breathing; the Circulatory, which deals with the blood-stream which flows continually in every part of us; the Nervous, which deals with movement and feeling and thinking and all the many activities of the various parts of our body; and the Excretory, which deals with the waste material which our body is continually producing.

Let us take a glance at these systems one by one.

#### The Alimentary System.

Beginning at the mouth, our food is first broken up by the teeth, and ground into a paste by the action of our



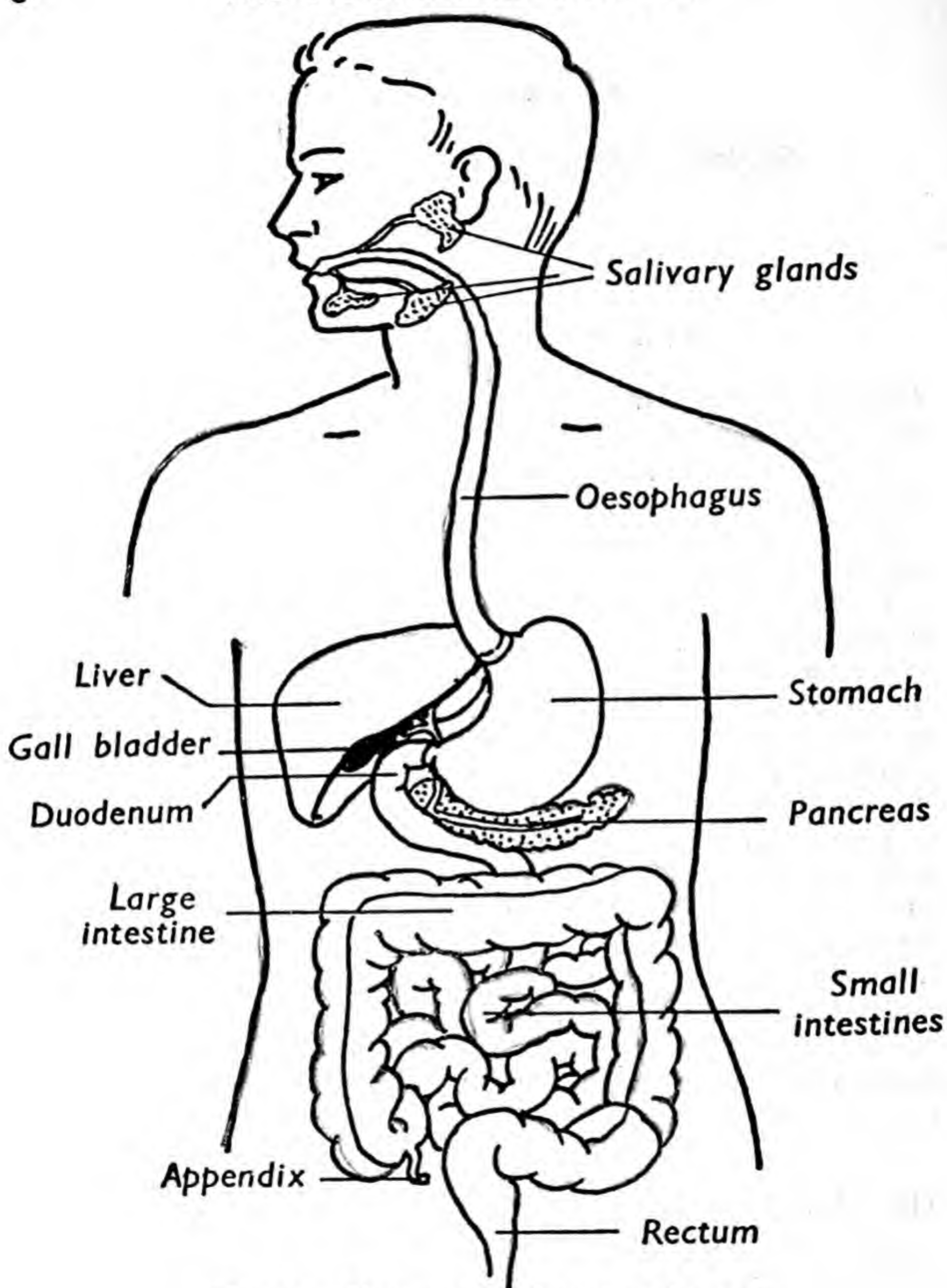


FIG. 1.—Diagram of Alimentary System.

jaws and the help of the saliva with which our mouth is kept moist. The saliva does not only moisten; it also digests, turning some of the starches in our food into sugars, in which form we can absorb and make use of them.

The mouth having done its work, the food is swallowed, passing down the gullet or *œsophagus* into the stomach.

In the stomach the main process of digestion takes place; the food is churned about by the muscular movements of the stomach and mixed with the gastric juice. When this process is completed—a matter of from two to four hours, according to the nature of the food—the half-liquid mass is passed into the small bowel. The first part of the small bowel is called the *duodenum*; this is a curved tube about twelve inches long, and in it the food meets with the bile and the digestive juice from the *pancreas*. From the *duodenum* the food passes through the twenty-two feet or so of the small bowel, and, as it goes along, the living lining of the bowel is engaged in picking up the nourishment from the digested mass and passing it into the circulation. The remainder arrives at the large bowel—and at the place where the small bowel joins the large, in the right-hand lower part of the abdomen, is that interesting and sometimes troublesome little tubular relic, the *appendix*—and makes its way along the course of the large bowel or colon upwards on the right side, and then across to the left and down to the rectum (or back passage), where it collects until it is of sufficient bulk to cause a desire to evacuate, and so it is passed away.

### The Respiratory System.

Breathing is carried on by the movements of the chest-wall, and by the up-and-down movement of the *diaphragm*—the name by which we call the muscular partition which divides the chest or *thorax* from the abdomen. By these movements air is drawn into the lungs and sent out again.

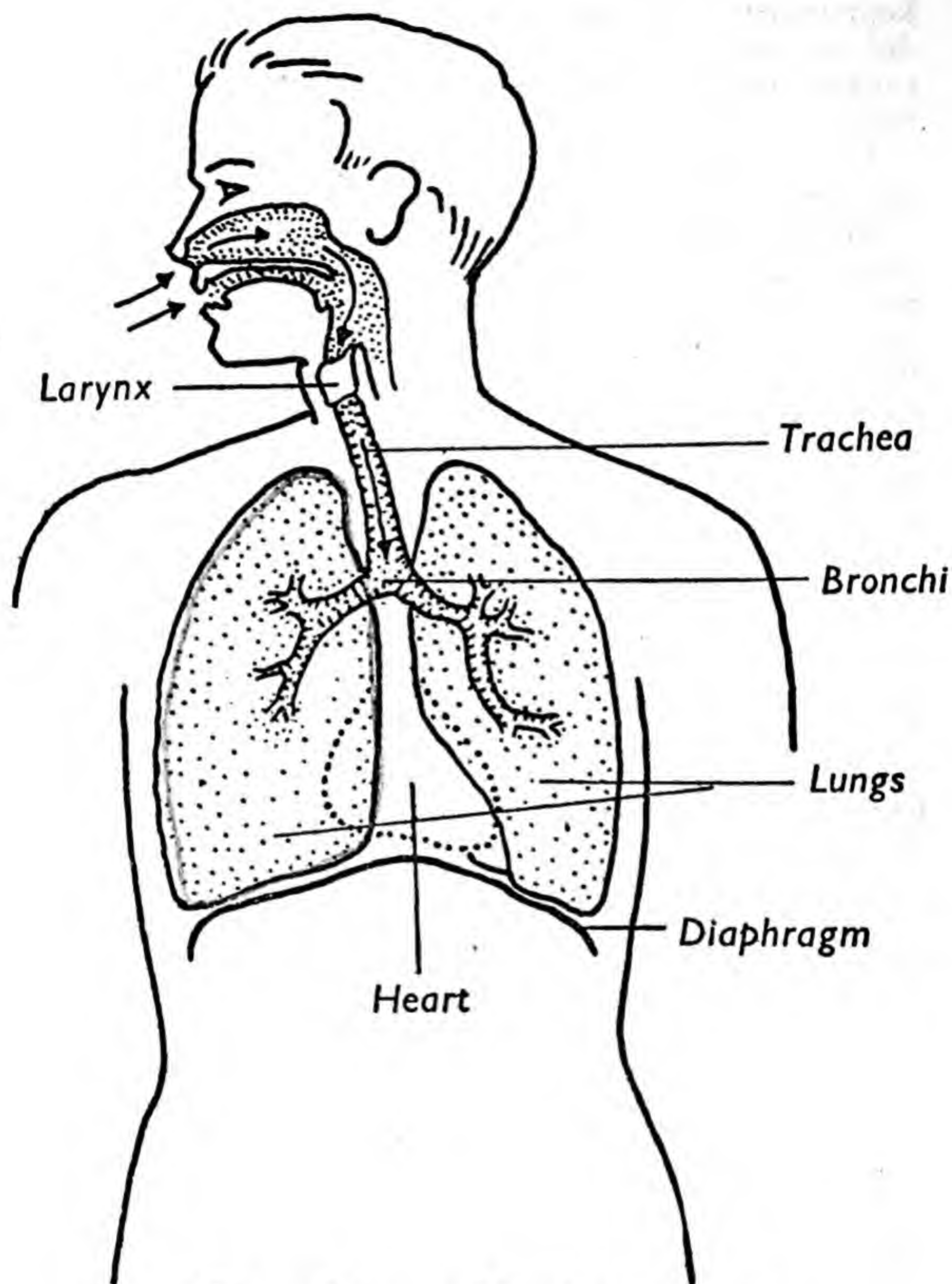


FIG. 2.—Diagram of Respiratory System.



In the act of breathing the air passes first through the nose, where it is warmed and filtered—hence the importance of nose-breathing as contrasted with breathing through the open mouth. Passing through the larynx or voice-box and down the trachea or wind-pipe, the air reaches the bronchi, which are the tubes around which the lungs are built. Through smaller and smaller divisions of these tubes the air at last reaches the spaces or alveoli which form the endings of the tiniest tubes: there an exchange takes place, the blood taking up the oxygen and giving back the carbon dioxide which has resulted from the burning up of waste material. This waste air, together with some moisture, is breathed out: and so the marvel goes on. Fresh air in—foul air out—fifteen to eighteen times every minute, whether we sleep or wake.

### The Circulatory System.

The heart is a muscular pump, and by its beating blood is sent through the arteries to all parts of the body. Through smaller and smaller vessels the blood-stream goes, until it reaches the tiniest of all, the thin-walled capillaries. Here again an exchange takes place, the oxygen which the corpuscles carry being used for the restoration of the tissues, and the waste which results from their activities being carried away. Having completed its outward journey, the blood is collected from capillaries into veins, and is carried back to the right auricle of the heart. This muscular pump, the heart, consists of four chambers, two auricles and two ventricles. From the right auricle the blood is passed to the right ventricle, whence it is pumped into the lungs: there it receives new oxygen in exchange for the waste it has brought from the tissues of the body, near and far. From the lungs it passes to the left auricle, thence to the left ventricle, the most powerful of the heart's chambers, from which it is sent forth on its journey around the body again.



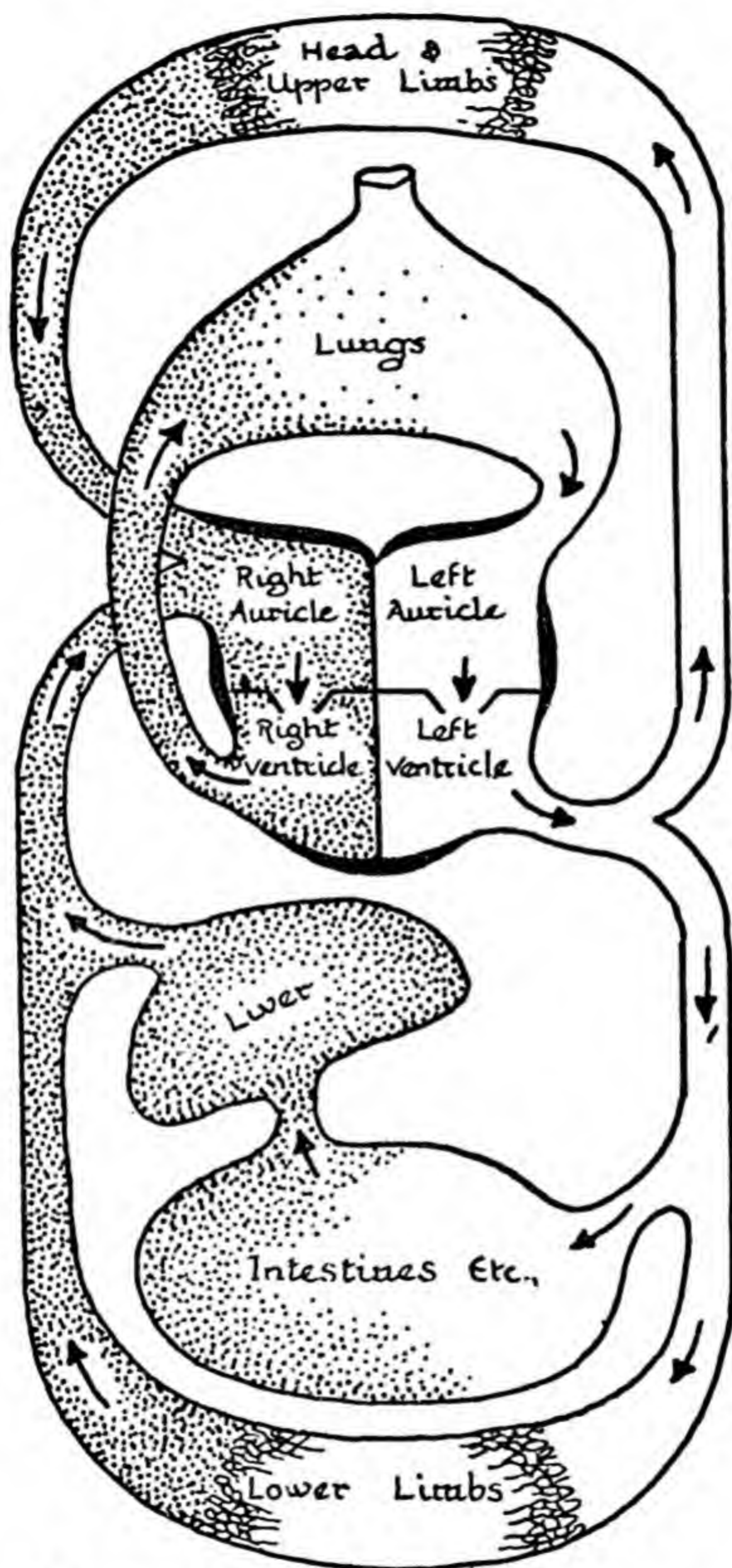


FIG. 3.—Diagram of Circulatory System.

Year in, year out, the heart goes on, beating about seventy-two times every minute, and maintaining an even and ceaseless circulation of the blood.

### The Nervous System.

The brain is the centre of thought and feeling, and the seat of all our five senses and of the government of all the actions and processes which go on in the body. Messages are sent and received by means of nerves.

The brain is contained within the skull, protected from shocks by the cerebro-spinal fluid which lies between it and its bony case. From the brain there passes the spinal cord, which occupies the central canal of the backbone.

In addition to the nerves of sensation and impulse, we have a third system of nerves within us—the “sympathetic” nerves—which control many of our bodily processes.

### The Excretory System.

Excretion, or the ridding of the body of its waste material, is carried out by the bowel, the kidneys, and the skin. The waste from our food is carried away through the lower end of the bowel. The waste from our blood-stream is collected by the kidneys, and passed out through the urine; and other waste is thrown off by the skin in the form of sweat or perspiration.

. . . . .

This is only a very sketchy and incomplete account of our five main “systems”: it will serve, however, to give some slight idea of the complicated and truly marvellous body in which we live. The story might be carried farther; for there is yet another system which has a great influence over our health, and that is our “Endocrine” system. There are many small and seemingly insignificant organs in our body which pour material into our blood-stream, and this material—or



rather these various materials—have a profound influence on our well-being, and a loss of balance between them may result in illness. But the five main systems

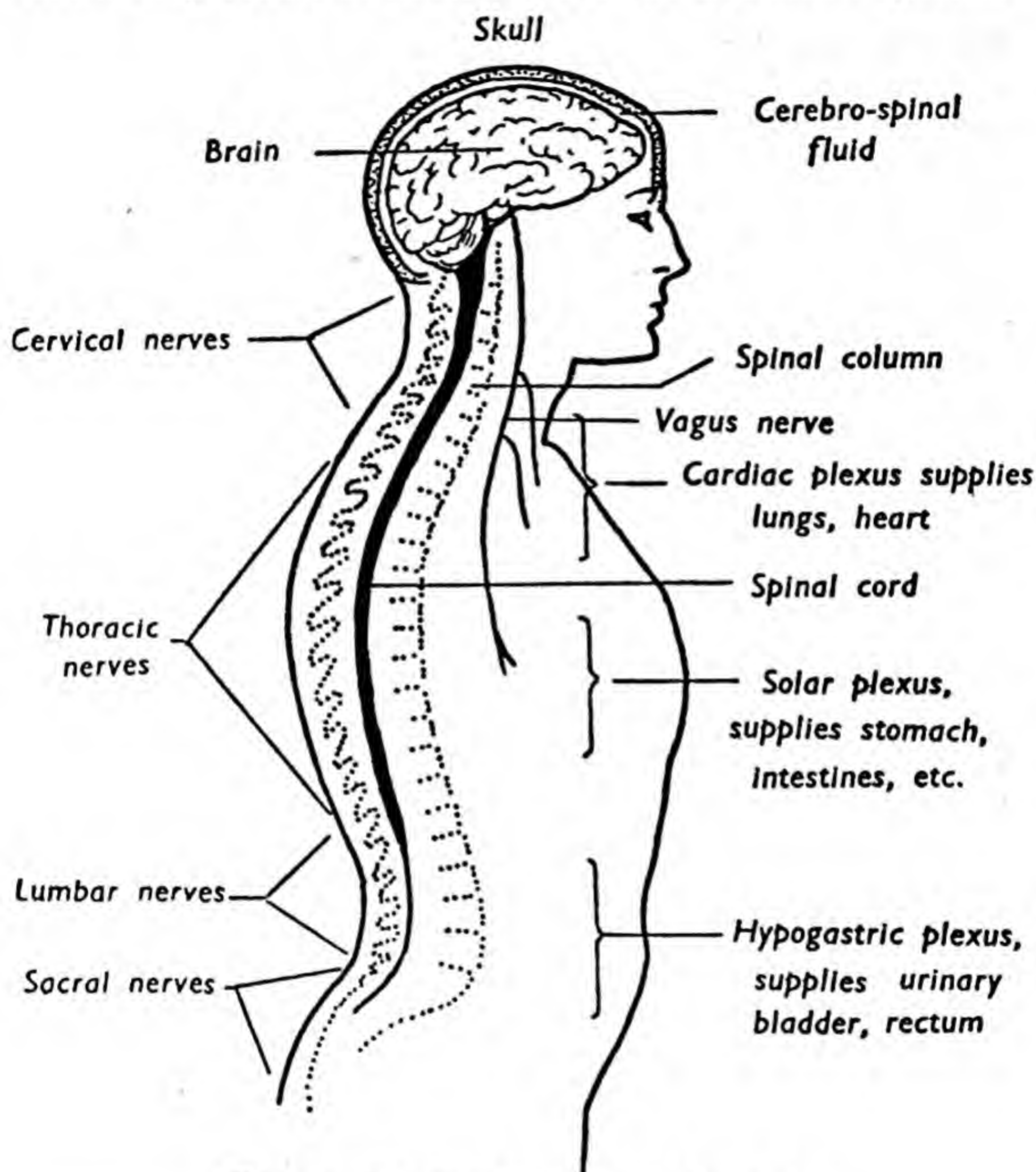


FIG. 4.—Diagram of Nervous System.

are enough for our purpose; and our purpose is to write of health and how to keep it, and to learn how to deal with some of the many ills that may assail us,

## CHAPTER II

### KEEP WELL

“HEALTH,” says the dictionary, “is the feeling of well-being.” We want health; we want this feeling of well-being; we have by nature a right to it; and therefore we must seek to get it and to keep it.

Health depends on the proper working of our organs, and especially on the proper working together of the various systems of our body; and in answer to the question “What are we to do to ensure this proper working?” here are some simple

### RULES OF HEALTH

#### 1. Take Regular Meals.

Most people are used to three or four meals daily, taken at times to fit in with various circumstances, such as hours of work; but whatever the times be, they should follow a regular daily time-table.

An average time-table of daily meals might be something like this:—

Breakfast at 8 o'clock.

Dinner (or lunch) in the middle of the day.

Tea in the afternoon—say about 4.30.

Supper (or dinner) in the evening—say at 7.30.

This time-table is quite good if followed with regularity.

#### 2. Take Proper Food.

Proper food is food which is plain and wholesome, and suitable to the season and to the individual.

And food must be proper both in quality and in quantity.

If we eat too little, we cannot build our physical selves and provide energy for our work and our play.



If we eat too much, then we give our digestive and excretory organs more work than they can do, and as a consequence we get what we know as headache and indigestion and constipation.

Food, in our rules of health, must include fluids also.

The healthy adult needs to take in from fifty to seventy ounces of fluid daily, or, say, a daily average of three pints.

Some of this fluid is in the form of water, or in tea, coffee, cocoa, milk, soup, or other of our accustomed liquids; some—a relatively small amount—is taken in such foods as vegetables, puddings, and bread. And what has been said about food is equally true of fluids; the plain fluids are best for us.

### 3. Take Proper Exercise.

Exercise has a fourfold purpose:—

(a) It improves the power and tone of the muscles.

(b) It improves the condition of the blood by deepening the breathing, so that more oxygen is carried to the tissues of the body.

(c) It increases circulation, thereby improving the nourishment of our tissues, and promoting the carrying-off of waste products.

(d) It gives pleasure, which is in itself a help towards health.

Exercise, again, must be proper and reasonable, for over-fatigue may easily undo the good that exercise has done.

### 4. Take Proper Rest.

How many hours of sleep do we need? Many different answers have been given to this question, and whatever the answer be, we are not all alike; but as a rough guide

we may say that eight hours make a proper period of rest. Children need more.

Sleep is the time when the products of fatigue are removed from our tissues: we wake refreshed.

### 5. Ensure Proper Elimination.

To keep good health, it is necessary that those organs which remove waste material from our bodies should be kept in good working order.

The bowels should act at least once daily, and preferably in the morning. The establishment of an after-breakfast habit may easily be accomplished by those who will give the needed time and trouble to it.

The kidneys readily respond to the fluid we take; and the waste for which they are responsible is passed away in the urine. Good plain water in its proper quantity will keep our kidneys working well.

The skin must be kept clean; and the daily bath, or the daily wash-down, will accomplish this. Waste material is constantly being thrown off in our perspiration, mostly unnoticed by us unless warmth or exertion has increased it.

We often hear of the "pores"—the tiny openings of the sweat-glands on our skin—and we can understand that dust and grease must be removed if these small apertures are to act as they should.

### 6. Keep a Proper Frame of Mind.

The contented mind is a blessing which helps the body to be healthy.

Anger, agitation, excitement, worry—all these things must be subdued, for these emotions tell upon our health.

Be temperate in all things—in food, in drink, in work, in worry—and as much as lieth in you, live peaceably with all men,

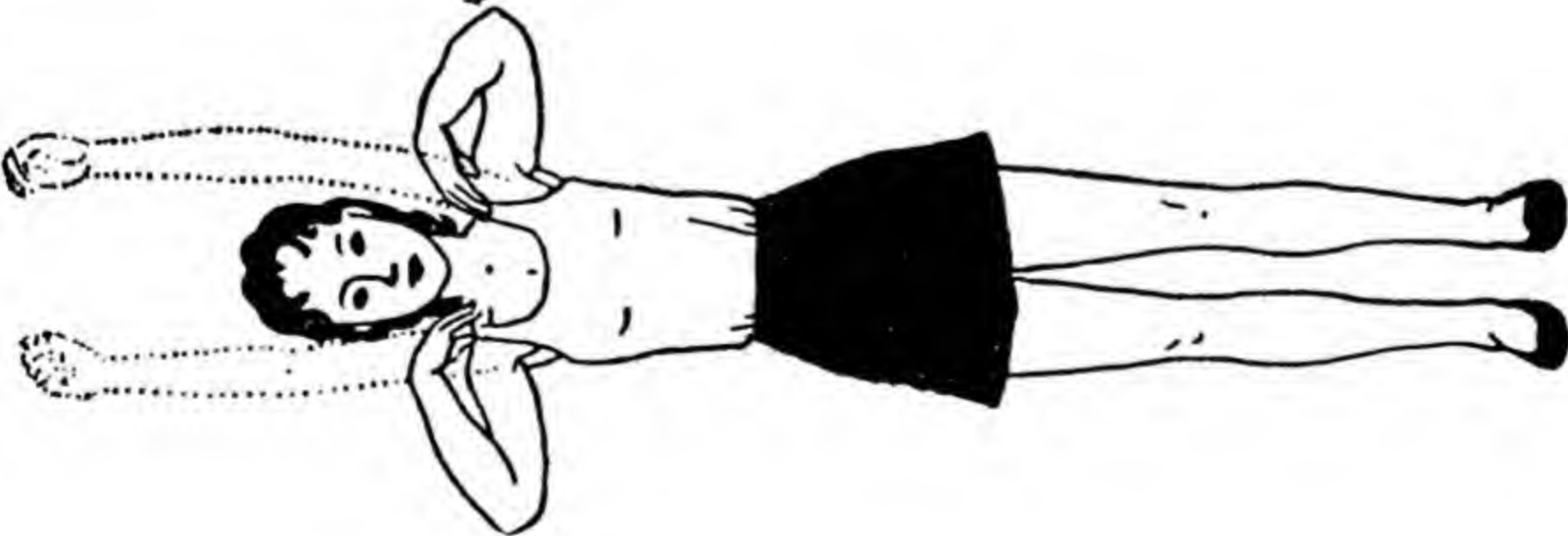
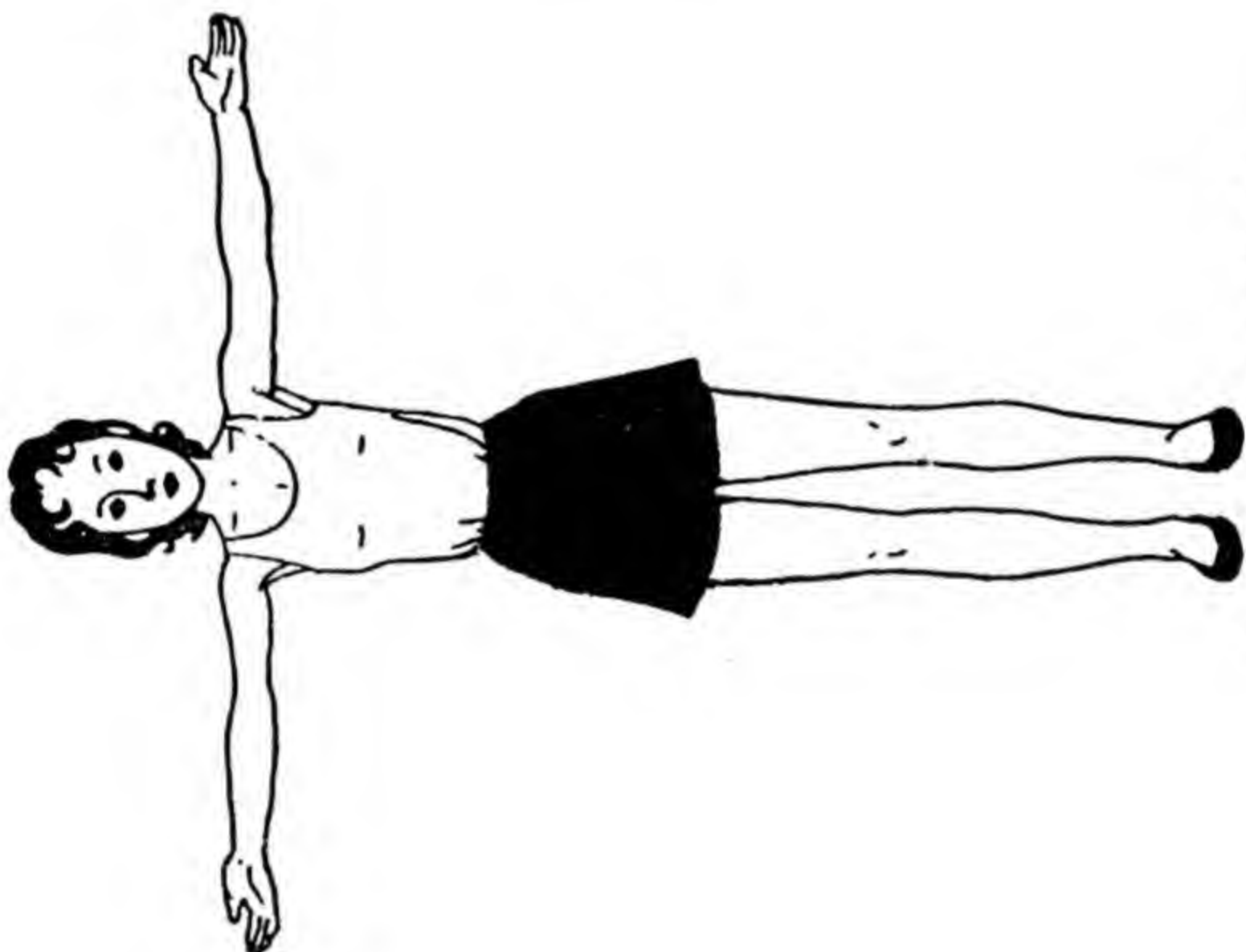
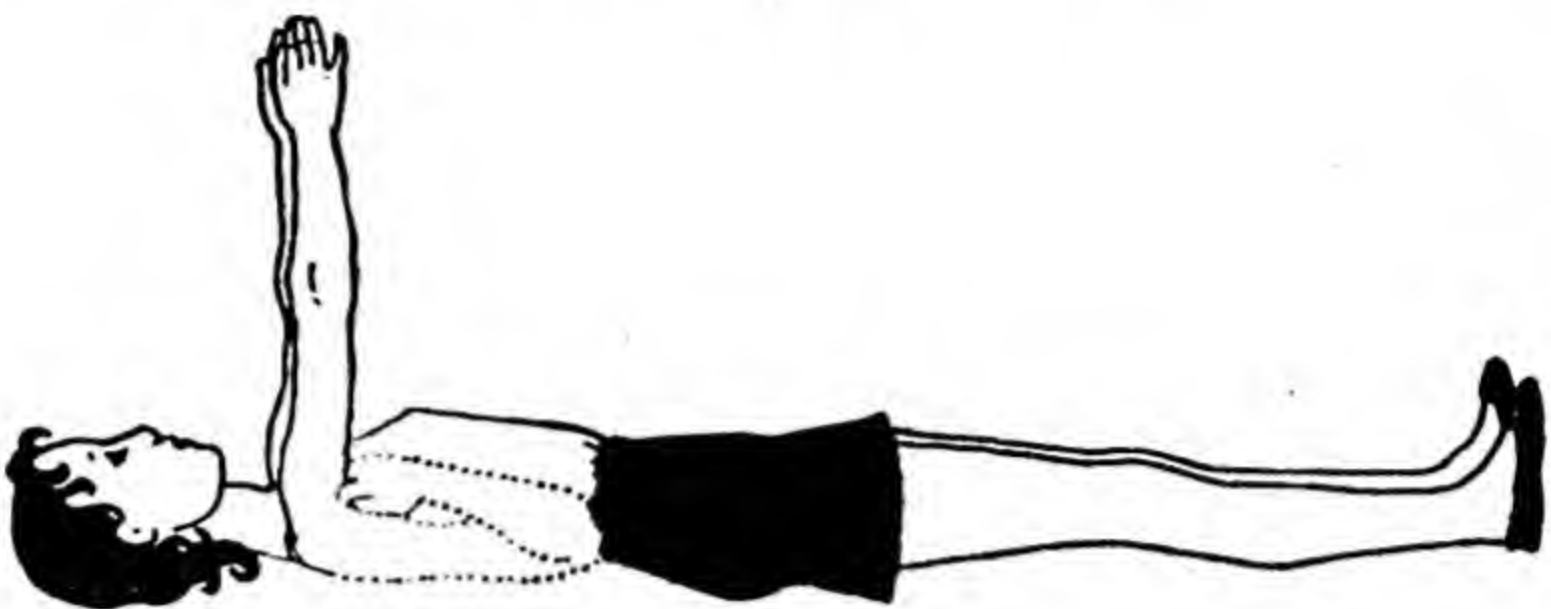


FIG. 5.—Arm Exercises.



## EXERCISES

A note may be added here on "physical jerks". The worker with a sedentary occupation, and the town-dweller who is denied the privilege of walks amid trees and green fields, and indeed many others, will gain benefit from simple exercises which improve the supple-

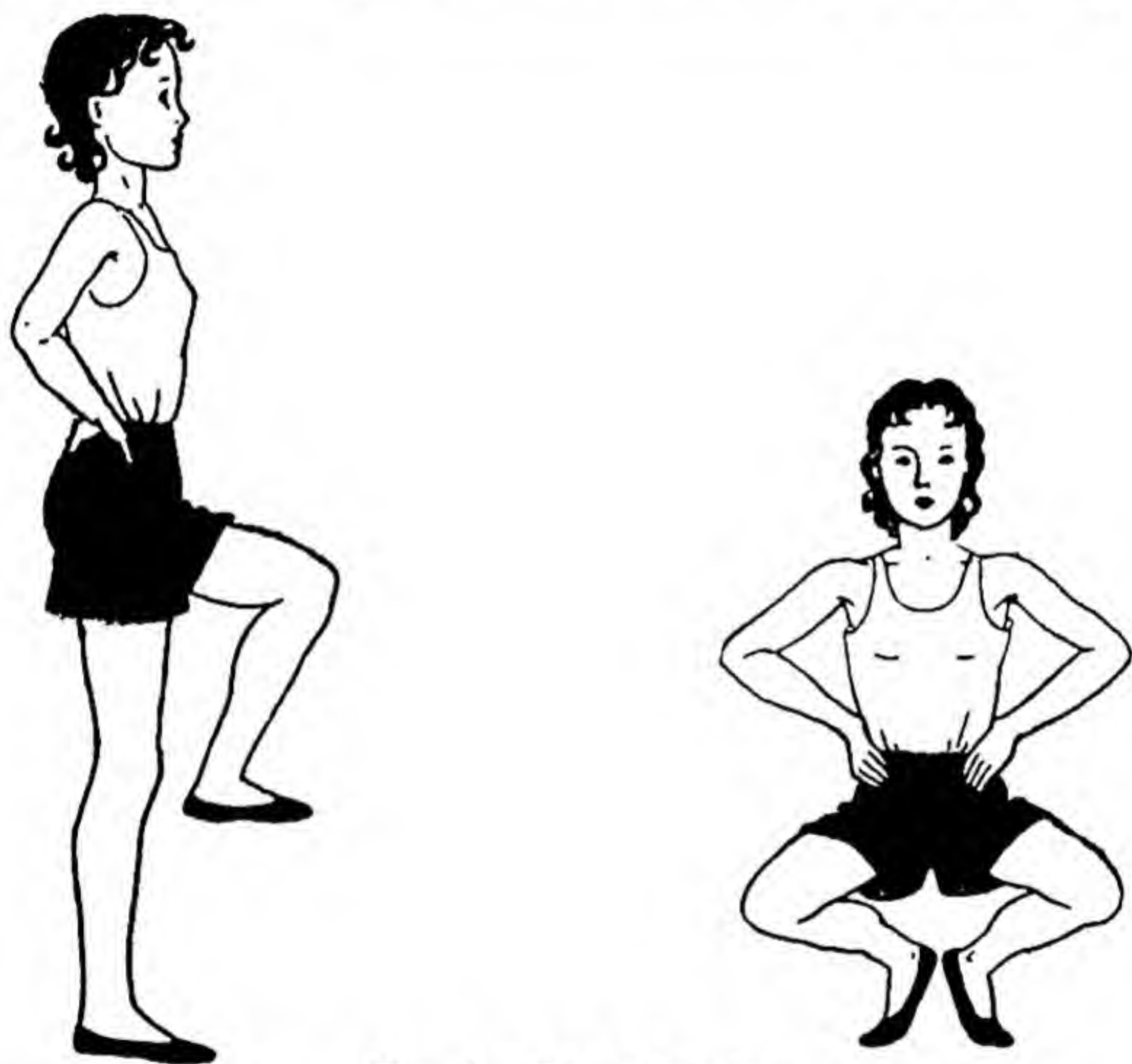


FIG. 6.—Leg Exercises.

ness and tone of the body and limbs. Ten minutes may profitably be spent each morning on "physical jerks".

#### I. Arm Exercises (Fig. 5).

Stand firmly; raise arms above head, and lower to shoulder level, with fists alternately clenched and open.

Extend arms outwards, and return finger-tips to rest on shoulders.



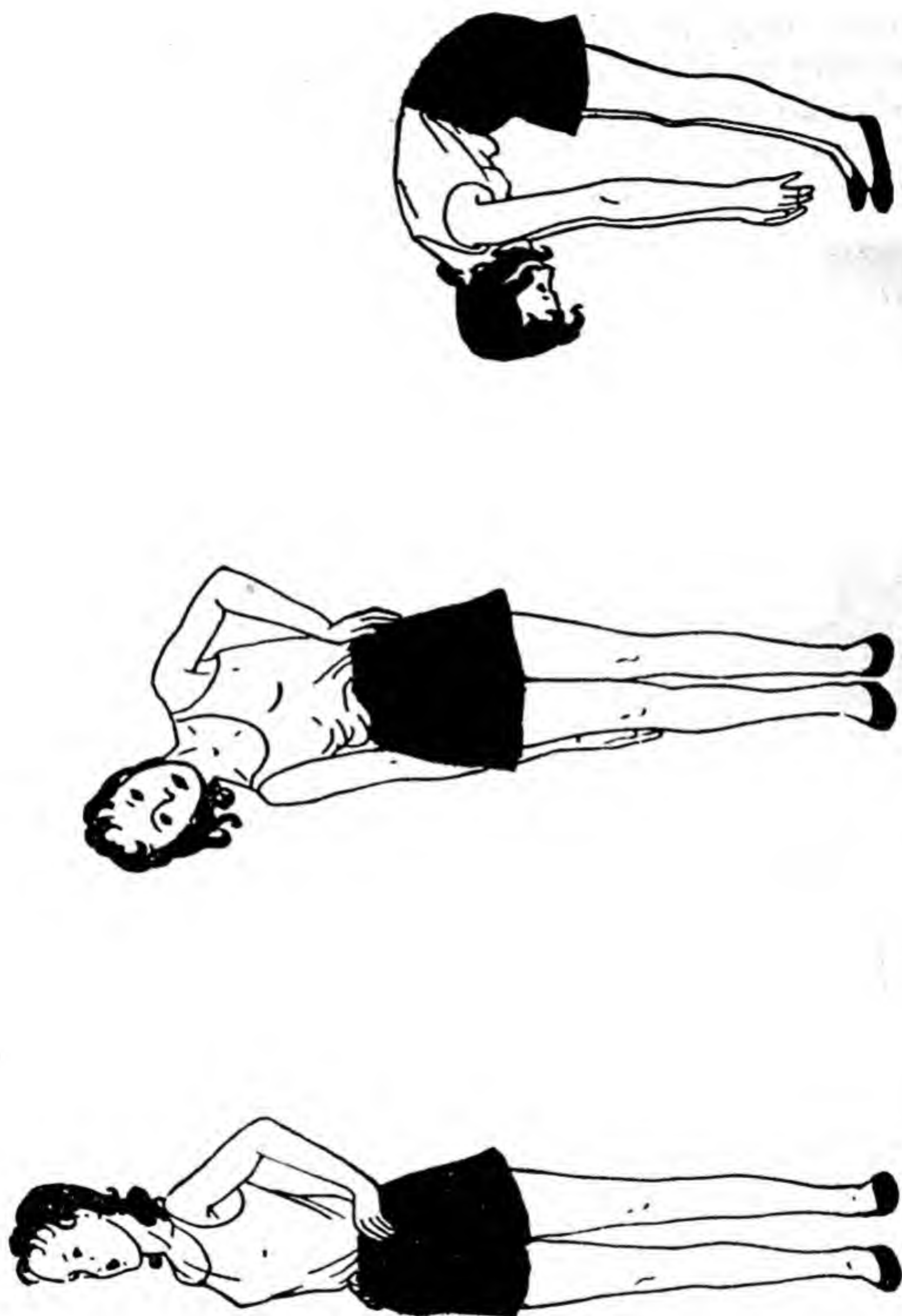


FIG. 7.—Body Exercises.

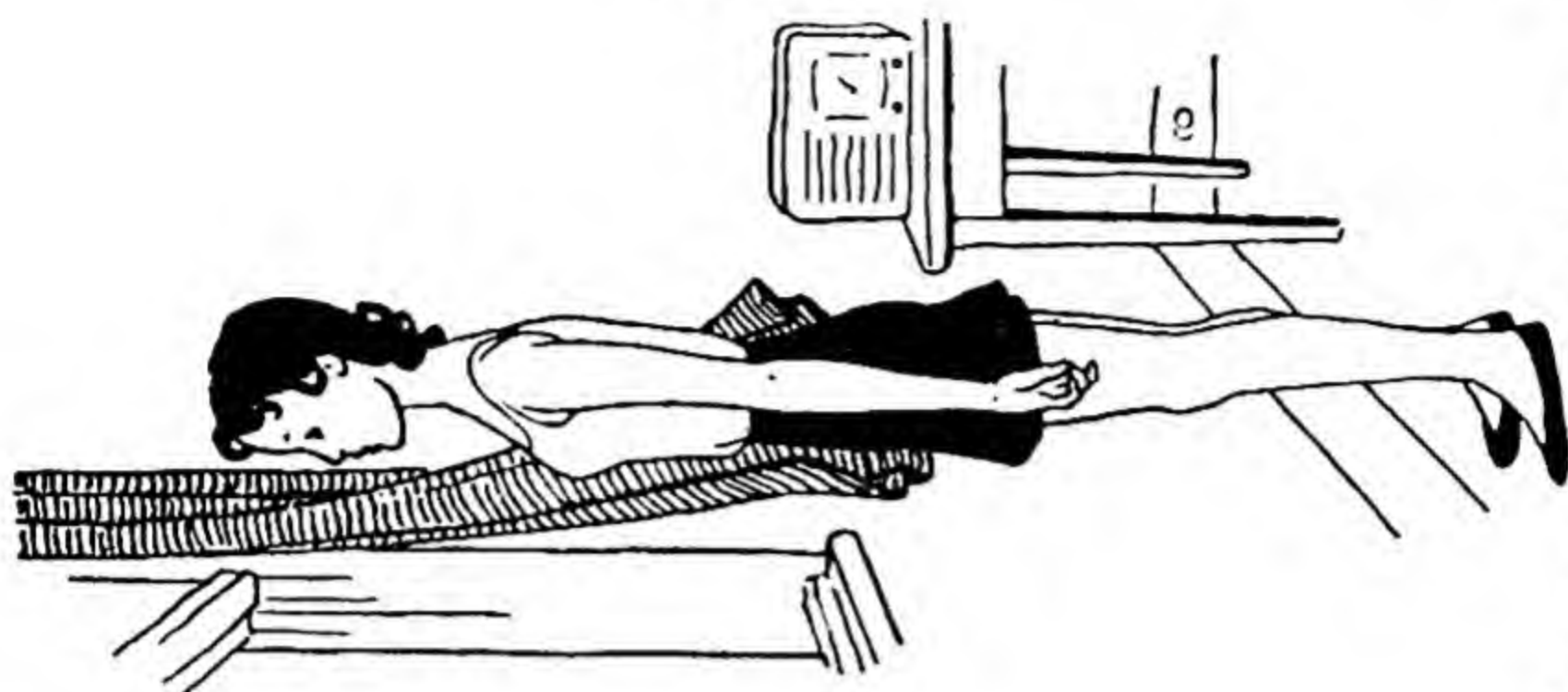


FIG. 9.—Breathing Exercises.

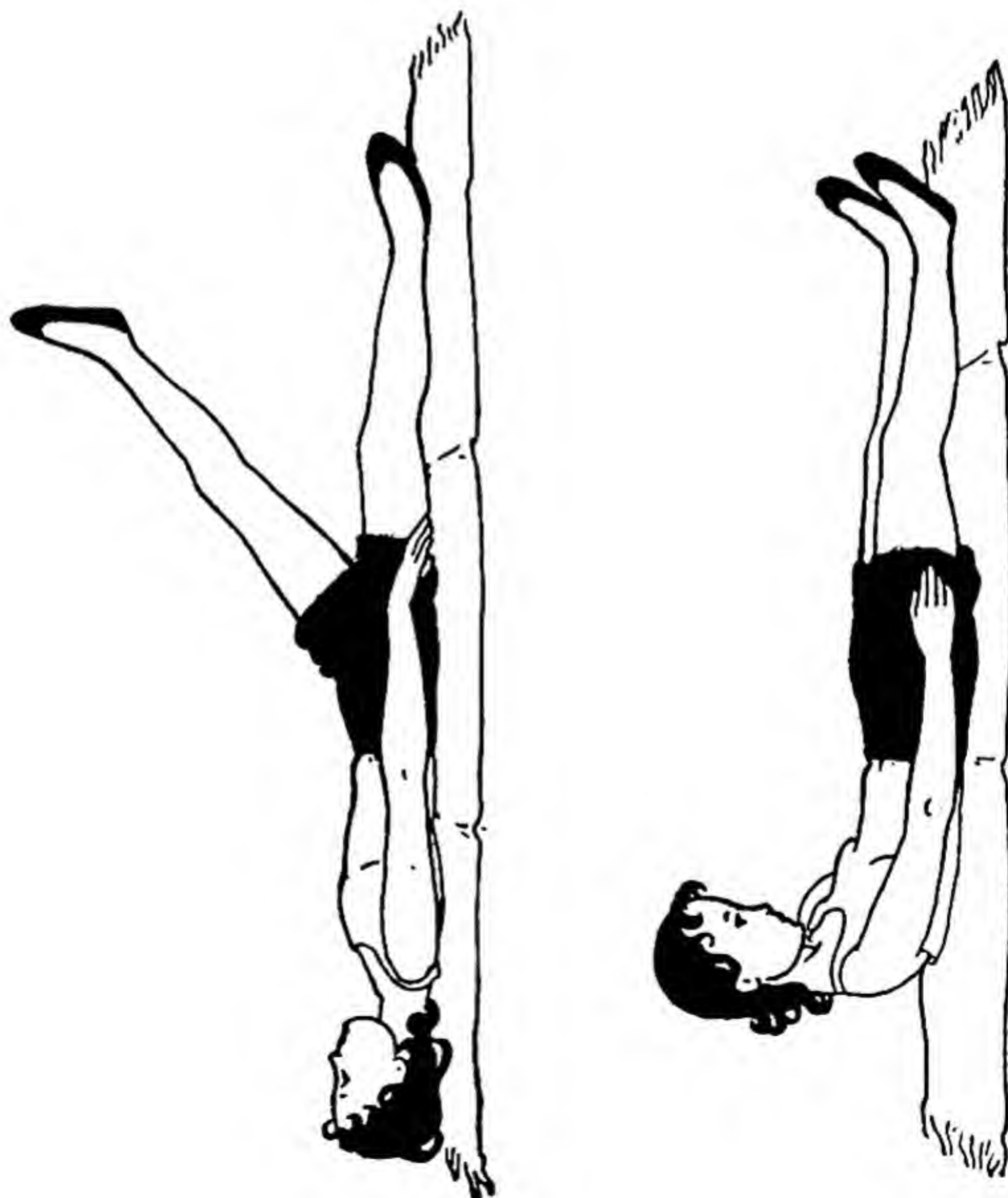


FIG. 8.—Body Exercises.

Thrust arms straight forward and return.  
Each of these exercises six times.

## 2. Leg Exercises (Fig. 6).

Stand; raise knees alternately with tramping movement.

Stand; feet together, toes pointed outward, hands on hips; sink by bending knees and rise slowly.

Each of these exercises six times.

## 3. Body Exercises (Figs. 7, 8).

Stand firmly; rotate body by turning shoulders from side to side.

Bend sideways, passing the hands alternately as far as possible down the outside of the leg.

Bend forward to a right angle; rise slowly and raise the head to look upward.

Lie on back; raise legs alternately with knees straight.

Lie on back; raise head to look at toes.

Each of these exercises six times.

## 4. Breathing Exercises (Fig. 9).

Slow, deep breathing in and out with mouth closed.

Those who have access to the "wireless" may well follow the exercises broadcast each morning before the day's work begins; women might well join one of the "Health and Beauty" classes found in most of our residential places.



## CHAPTER III

### DIET IN HEALTH

To keep our body in good health and in good working order, five different classes of material are required in our diet.

These are Proteins, Carbohydrates, Fats, Salts, and Water.

**Proteins** are the nitrogenous or meaty foods. They include all meat, fish, and eggs, and such vegetable foods as peas, beans, and nuts.

If you ask, Is meat necessary to health? or, in other words, Is it possible to be a vegetarian? the answer is, that the human being can live very well without meat, and can be healthy on a dietary in which the proteins are drawn from the vegetable kingdom: the one essential being that the vegetable proteins be well and slowly masticated, because they are mostly of a concentrated nature and of a hard substance, and require to be properly pulped by the teeth before the nourishment can be extracted from them.

**Carbohydrates** are the starchy foods and sugars.

Chief among these are sugar itself, potato, the various vegetable starches such as rice, sago, tapioca, semolina, and other things served usually as milk puddings; and, of course, bread of various kinds; and cakes and biscuits.

The starches require good mastication, because the saliva in the mouth contains a substance which changes starch into sugar, and it is in the form of sugar that our carbohydrate food is absorbed from the digestive tract into the circulation to be used for body-building and energy-giving.

**Fats.** The chief fats used as foods are butter (and margarine); the fats of the various meat foods, especially

beef, mutton, and bacon; milk—of which the fatty part is called cream—and such oils as we use in cooking and in salads. Fats are melted in the process of digestion, and split up into very small particles—to coin a name we might say microscopic dropules—and in this fine form they pass into our circulation to be used as body-fuel. The fats are the heat-giving part of our dietary.

**Salts.** This word does not only mean the common salt which we take on the edge of our plate, or sprinkle on food, or use in cookery; but also various other salts such as phosphates (found richly in oatmeal and wheat), calcium, or lime, of which milk is our chief source of supply, and a number of salts, including iron, which are found in fruit and vegetables.

These salts are chemical substances; they form part of the material of which our body is built, and are important constituents of brain and bone.

**Water** is a vital part of our bodily make-up.

We take in water because it dissolves our food and makes it fluid, in which form it is absorbed. We take in water because it dissolves waste material, and so assists in its removal from the body. We take in water because it forms a great proportion of our body-substance, and we take it to replace the wastage which is constantly going on by excretion.

Many of our foods contain several or all of these five constituents; some contain only one or two.

Potato and rice, for instance, are almost pure starch; and some fats and oils contain little else but fatty substances.

On the other hand, bread contains four of the constituents, and if butter is added to it we have all five—not in their right proportion for our needs, but there all the same.

Porridge and milk is another example of a food containing all the five constituents.



## Vitamins.

Vitamins are complicated chemical substances which occur in natural foods, and which have the effect of making our food do us good.

There are many different vitamins; and of them some, notably Vitamins A and D, are familiar to most of us by name.

For our purpose it is enough if we know of four, named Vitamins A, B, C, and D.

*Vitamin A* is the vitamin necessary for growth in young life. It is present in milk and fat, and richly in cod-liver oil and halibut-liver oil; and this is why these things are given to ailing and under-nourished children.

*Vitamin B* is mainly found in the husks of cereal foods. It keeps the nerves in healthy condition: the most striking example of its importance is in the neuritis which occurs in those who live on rice from which the husk has been polished away.

*Vitamin C* is the vitamin which prevents scurvy. It is found in green vegetables and fruits, especially such as are eaten uncooked.

*Vitamin D* is found principally in cod-liver oil and halibut-liver oil. It prevents rickets; in other words, it governs the proper growth and hardening of bones and teeth, and is necessary for growing children.

## CHAPTER IV

### THE EXPECTANT MOTHER

PREGNANCY is reckoned as lasting for nine calendar months, or two hundred and seventy-eight days from the first day of the last monthly period. As the actual date of conception is not known, it is obviously impossible to forecast the exact date of the birth of the child with certainty; but for a rough-and-ready guide this reckoning is the best that we have.

#### SIGNS OF PREGNANCY

##### 1. Missed Periods.

The first sign, usually, is the missing of a monthly period; and the periods continue to remain absent during the whole of the nine months. In a few cases a scanty period occurs at the first month or even the first two or three months of pregnancy; but in the vast majority of cases absence of the periods is the rule.

##### 2. Morning Sickness.

Many expectant mothers have a feeling of nausea, or actual vomiting, on first rising in the morning: this does not happen in every case. It is, however, an added indication of pregnancy if taken together with other signs. Nausea and vomiting usually cease after the second or third month.

##### 3. Enlargement of the Breasts.

By the end of the second month the breasts are enlarged; there is often a "pricking" sensation in them even earlier, and the dark area around the nipple increases in size. In the later months some fluid may be squeezed from the nipples. All these signs are confirmatory evidence of pregnancy.



#### 4. Quickening.

At four and a half months, or between the seventeenth and the twentieth week, the " quickening " occurs, when the developing child makes its first movement. This is usually no more than a fluttering felt in the lower part of the abdomen; it may not be felt again for some days; but after the sixth month movements are frequent and often vigorous.

#### 5. Enlargement of the Abdomen.

At four months the womb may be felt as a rounded swelling in the lower abdomen; at five and a half months it reaches the navel, and at eight months it is as high as the lower end of the breast-bone. During the last month the enlargement appears to sink, as the head of the child is gradually descending towards the passage through which in due time it will enter the world.

### HEALTH IN PREGNANCY

#### I. Sickness.

Let the expectant mother take for granted that sickness is not an invariable part of her condition. Let her realise that pregnancy is not an illness, but one of the natural events of life; let her avoid indigestible food and keep the bowels active. If, as happens in some cases, a little nausea or vomiting occurs in the mornings, let her take a cup of tea or hot water with a biscuit before rising from bed; and if this does not stave off the sickness, then half a teaspoonful of bicarbonate of soda in half a cupful of warm water will correct the over-acidity produced in the stomach and allay the sensation of nausea. If it should happen that a more persistent vomiting develops, resulting in disturbance of health, then a doctor should be consulted; if a doctor is not available, as in the case of people who live in the far places of the earth, then the treatment should be



rest in bed, plenty of sweetened drinks and milky food, and avoidance of meat and eggs.

## 2. Diet In Pregnancy.

In the early months of pregnancy ordinary diet is usual.

As the growing child demands more and more lime for the formation of its bones, the expectant mother must take more of the lime-giving foods, and of these the chief are milk and green vegetables.

As the months pass, the quantity of meat in the diet should be reduced, owing to the strain which pregnancy throws on the mother's kidneys in the elimination of increased waste; starchy and sugary foods should be increased, and green vegetables and salads taken freely.

## 3. Exercise In Pregnancy.

Ordinary exercise, such as walking and the exercise involved in household work, may be continued throughout pregnancy.

Violent exertion, and such work as the shifting of heavy furniture, should be avoided; and it is wise to take a few more restful days at those times when the monthly period would have fallen due.

Doctors are often asked about sea-bathing and swimming. For people who are accustomed to these things, I think there can be no harm in them, provided that no shocks or exposure to cold are involved, and that no such exercise is taken at the "period" times mentioned above. In the last three months it will be felt best to abstain.

## Care of the Figure.

A warning must be given against tight corsets, and the desire, sometimes seen, so to lace the figure as to disguise the natural enlargement of the abdomen. Needless to say, all clothing should be sufficiently roomy, and anything that tends to compress the developing child should

be avoided. If, in the later months, the abdomen is weighty and inclined to droop forward, then a light supporting belt or corset is helpful and comfortable. Exercise will have the effect of maintaining the tone of the muscles; and after the birth of the child the abdominal wall may be strengthened by such exercises as drawing up the knees or raising the head while lying flat, such to be commenced when the infant is a week old.

### 5. Care of the Nipples.

At about the seventh month the expectant mother should begin to draw out the nipples daily, handling them gently and using a little lanoline on the fingers. Spirit should not be used, as it hardens the skin and makes it liable to crack; washing with soap and water, and gentle massage with lanoline are quite enough.

### 6. Care of the Skin.

A daily wash-down is good; and hot baths may be taken if excessively hot water is avoided.

To lessen the tendency to the formation of lines on the skin of the abdomen, the gentle inunction of lanoline is useful; this should be done at bedtime, each evening during the last two months.

## SOME TROUBLES OF PREGNANCY

### I. Toothache.

'Teeth may soften and decay because the developing child is taking so much of the lime from the mother's blood for the making of its bones. This may be prevented by an increased use of lime-giving foods on the part of the mother: the chief of these is milk. There is no need for the expectant mother to lose any teeth during her pregnancy: if milk, porridge, and green vegetables do not suffice to supply the lack, then she may take calcium in tablet form; the five-grain tablets of calcium



lactate are convenient, from three to six tablets to be taken daily for some weeks; other forms of calcium tablets are sold. It may be mentioned here that teeth which are decayed should have the attention of a dentist; or, if a dentist is not available, then it is better that the teeth should be extracted by someone who has the ability to do it, than that they should remain in the mouth as a possible source of danger to health.

## 2. Cramps.

Cramps in the leg-muscles are not infrequent as the later months pass; but these, again, can be relieved and warded off by the taking of calcium. Resting with the legs up is useful in relieving the fullness of veins which results from too much standing and from the increasing pressure within the abdomen.

## 3. Varicose Veins.

Some expectant mothers suffer from varicose veins, while others pass through the whole of pregnancy with no such trouble. The leg-muscles should be kept well exercised with walking, and too much standing avoided. If the veins show signs of enlargement, then a "crêpe" bandage, lightly wound up the leg before rising from bed, will act as a support and give great comfort.

## 4. Piles.

Piles, or enlarged veins at the orifice of the bowel, are also a not infrequent trouble. They are partly due to pressure, but partly to constipation; and there is much to be done in the way of ensuring a soft motion of the bowels every morning. To manage this, fruit and green vegetables should be taken in plenty, and one or two teaspoonfuls of liquid (medicinal) paraffin or a senna tablet taken with each of the principal meals.

If piles form, they should be bathed with warm water

after the bowels have moved, gently smeared with a witch-hazel ointment, and pressed back.

### 5. Headaches.

Headaches may occur in pregnancy as a result of any of the usual causes of headache, such as eyestrain, constipation, or "biliousness"; but if persistent, and especially if accompanied by spots before the eyes or vomiting, then the advice of a doctor should be sought, as such headaches may be evidence of strain on the kidneys. The treatment would be rest in bed, the entire avoidance of all forms of meat-foods, including eggs, and the taking of starchy foods such as milk puddings, and also the free taking of sugar or glucose. At the same time the bowels should be kept active by saline aperients.

It is important that the expectant mother should reach her confinement in the best possible health. It is known that decayed or "septic" teeth and unhealthy tonsils may be sources of ill-health during the days after the baby is born. Therefore such things should receive attention.

Live an ordinary life, free, as far as possible, from worry and strain; attend to exercise and cleanliness; eat suitable food, and do not over-eat; keep bowels active, by liquid paraffin or mild salines or cascara or senna, avoiding the more drastic purgatives; and cultivate a happy frame of mind in preparations for the care and clothing of the small stranger who is in due time to arrive in the household.



## CHAPTER V

### FEEDING THE BABY

#### BREAST-FEEDING

THE new-born baby sleeps most of its time for the first two days, but may be roused and put to the breast at eight-hourly intervals on the first and at six-hourly intervals on the second day. The breast-milk has not yet come, but the infant will suck some of the fluid—called colostrum—which precedes the milk, and this acts on the child as a useful aperient. At the same time the act of sucking stimulates the breasts to activity.

On the third day some milk has usually come, and the baby will take feeds at four-hourly intervals.

If the milk is delayed, sweetened water may be given to the child; but it is not wise to give cows' milk if only a short delay is expected before full breast-feeding can be instituted. Breast-feeding is the best feeding, and may be continued until the child is nine months old.

Hours of feeding must be regular; and a four-hourly interval suits most infants perfectly well. Six, ten, two, six, and ten o'clock are good times to follow.

Where the breast-milk flows easily and the child is strong, too-rapid feeding may result. The average time of feeding is twenty minutes—ten minutes at each breast: if the feed is taken greedily and more quickly than this, the child may vomit some of the milk or cry with discomfort in its stomach. The remedy is to let the child suck for a minute, and then take it off for a minute to allow the first mouthfuls to settle in the stomach; then the feeding may be resumed.

After feeding, the nipples should be washed and dried; then, if there is any tendency to soreness, they may be gently rubbed with olive oil. It is better not to apply

any spirit or alum or other astringent to the nipples; such things make them more likely to crack, and may also taste unpleasant to the baby.

If the baby does not gain in weight as it should—from four to seven ounces increase in weight each week is right—then a “test feed” should be done to find out what quantity of milk the child gets at a feeding. This is easily done if reliable scales and weights can be had: weigh the baby in its clothes before and after feeding, making no change whatever (for instance, not changing a wet napkin), and the difference in the two weighings will give the number of ounces of food taken.

**Signs of under-feeding are :—**

- (1) The baby does not gain weight, or actually loses;
- (2) The baby cries as if not satisfied after feeding, putting his fingers in his mouth, and if he sleeps he wakes before the next feeding is due;
- (3) The stools are irregular, scanty, and brownish-green; there may be a form of green watery diarrhœa.

**Signs of over-feeding are :—**

- (1) The baby vomits after its feeds, due to over-filling of the stomach;
- (2) The baby cries with colicky pains;
- (3) There is diarrhœa with offensive stools;
- (4) At first there is a great increase in weight, but as the digestion suffers the increase is less, or there may even be loss of weight.

**Some further rules for breast-feeding are:—**

- (1) Make sure that the nipple is properly grasped in the mouth, otherwise the infant will swallow air;
- (2) Do not let the baby go to sleep over his feeds;
- (3) Do not on any account be tempted to give a feed during the night; a drink of water will usually suffice to soothe a fretful baby.



## ARTIFICIAL FEEDING

Breast-feeding may be impossible or unsuitable, and then bottle-feeding must be adopted.



FIG. 10.—Giving the Baby its Bottle.

The bottle should be of the boat shape, with a valve at one end and the teat at the other. The valve allows air to enter the bottle as the milk is withdrawn: in the

bottle without valve (the medicine-bottle type) the infant sucks against pressure. The bottle should be washed and scalded after each feeding; the valve and teat also.

There are two alternatives in bottle-feeding: one is a modified cows' milk; the other, one of the many dried-milk foods.

The dried preparations are the easier; and they do away with the disadvantage of cows' milk, which may vary in quality according to season and locality. The dried preparations are useful, also, where fresh milk is unobtainable or unsafe.

If fresh cows' milk is chosen as the baby's food, here are rules to be followed.

(1) Feeding is to be at four-hourly intervals; and the total quantity given per day is to be from two-and-a-half to three ounces for each pound of body-weight. (For instance, if baby weighs seven pounds, the total amount given daily would be from seventeen-and-a-half to twenty-one ounces: this, divided into five feeds, would give from three-and-a-half to four-and-a-quarter ounces to each feed.)

The bottles are given at 6 a.m., 10 a.m., 2 p.m., 6 p.m., and 10 p.m.; and the baby is expected to sleep through the night between the ten-o'clock and six-o'clock feeds.

On such a routine a healthy baby will gain in weight from four to seven ounces weekly, and will more than double his birth-weight in six months.

### The Milk Mixture.

A good creamy milk should be chosen, and it is safer boiled.

For the first week a half-and-half mixture should be given, thus:—

Creamy milk one ounce,  
Water one ounce,  
Sugar of milk one teaspoonful.



At a month old the mixture may be two of milk to one of water, and the strength of the mixture may be increased each month until at six months old the child is on full milk. The quantity will be in accordance with the body-weight.

At six months, or five months in lusty infants, a feed of groats or other thickened milk-food may be given in place of the midday bottle, and a rusk or buttered crust may be given for the baby to gnaw.

At nine months the bottle should be gradually discontinued, and the child drinks from a cup. At this age the midday meal may consist of pulped-up potatoes and greens with gravy, or a bone-broth may be given.

From a month old, orange juice may be given in addition to the bottle feeds, and the day begun with the following routine.

6 a.m., bottle (milk and water mixture).

9 a.m., juice of half an orange, with half a teaspoonful of sugar, made up to one ounce with boiled water.

9.30 a.m., bath, after which the baby may lie and exercise his legs by kicking until the ten-o'clock bottle is ready.

Whatever feeding is chosen, the baby should be held out over a "chamber" after each feeding. It is remarkable how quickly a baby learns what is expected of it; and by the time it is two months old an infant will have learnt to pass its water or its motion when so held out, and a wet or dirty napkin is the exception.

Remember also to allow the baby to kick: he gets no other exercise, and the woolly suits which leave the legs free to kick are vastly preferable to the long gowns of the days of our grandmothers.

### Feeding with Dried Milk.

Of dried milks there are several on the market: there are also modified milks to which malted starchy

material has been added. Unaltered starch should not be given to a baby under two months old, as its starch-digesting ferments have not yet been produced; indeed, these ferments are not in full activity until the child is four or five months old: therefore dried foods containing unaltered starch are not suitable in the earliest months.

The advice to the mother who wishes to feed her baby on a dried-milk food is this: choose a known and tried food, and persevere with it. There is sometimes a little difficulty in getting the baby settled to bottle-feeding, of whatever kind, because it has, likely enough, been involved in a struggle to breast-feed, and has become upset in its digestive system as a consequence.

Instructions for mixing the foods are given on the tins or packets; and with most dried foods it is well to add orange juice or cod-liver oil to the dietary, in order to make good any deficiency in the vitamins necessary to health and growth.

### Weaning.

The correct age for weaning must depend on progress: the baby should have doubled his birth-weight in the first six months.

Then again, weaning, to be satisfactory, must be gradual: babies have an instinctive dislike to sudden alterations in their feeding or their daily habits, and for this reason the weaning must be managed by imperceptible means.

If progress up to six months has been normal, and baby has doubled his birth-weight, from three to four ounces of groats may be given at the two-o'clock feed, and the child then allowed to complete his feed from the breast: day by day a little more groats and a little less of the breast is given, until at the end of ten days the two-o'clock feed is entirely a feed of groats. At the same age—six months—a rusk may be given: the best time is four o'clock in the afternoon, as the baby is likely to be



awake at that time. Be careful not to leave the baby alone with his rusk, lest he should get pieces in his throat.

Now begin to lessen the ten-o'clock (night) feed, so that by the time baby is from seven to eight months old he is doing without this feed altogether.

During these weeks groats may be gradually substituted for the ten-o'clock (morning) feed; and at the same time strained vegetable or bone broth can be given instead of the groats at the two-o'clock feed.

By the age of eight or nine months such spoon-foods as porridge, well-cooked milk puddings, coddled egg, steamed brains, pounded liver, or fish steamed and well pounded, may be introduced gradually, and also bread and butter and sponge fingers.

## TIME-TABLE AND DIET AFTER WEANING

When baby wakes (between six and seven a.m.).

Orange juice or other fruit juice.

(This is an important part of the diet of the child: it supplies the vitamins necessary for growth; and has also the advantage that it encourages action of the bowel.

The juice of half an orange—a tablespoonful or more of juice—may be sweetened with a level teaspoonful of sugar, and made up to two ounces with boiled water, or the prepared orange juice or black-currant juice may be used.)

### 8.0 a.m. Breakfast.

Porridge or a cereal with milk and sugar.

A piece of bread and butter.

Coddled egg or fried bread if desired.

Milk to drink.

(*Note.*—The wheaten cereals are preferable to those prepared from maize.)



10.30 a.m.

Half a pint of milk with a tablespoonful of lime-water: then a sleep.

1.0. p.m. Dinner.

Give any of the following as a first course.

Vegetable or bone broth; potatoes or bread-crumbs, and greens or mashed carrot or swede well pounded up with red gravy or coddled egg. Quantity to be about two tablespoonfuls. Pulped-up steamed fish (white fish steamed in milk, and carefully freed from bones); or steamed brains and mashed potato may be mixed with either of these.

For a second course give any well-cooked milky pudding, such as semolina or ground rice or corn-flour; or baked egg custard if egg is not included in the first course; and a little well-pounded stewed apple may be added occasionally.

Finish the meal with a drink of milk or water.

4.30 p.m. Tea-time.

Bread and butter, or rusk, with honey or jam occasionally; plain cake. Milk to drink.

5.30 to 6.0 p.m.

Playtime; developing into story-time.

6.0 p.m.

Bath; bed; half a pint of milk to drink, with a tablespoonful of lime-water.

## CHAPTER VI

### ROUTINE IN THE NURSERY

#### Regularity.

In anything to do with the care of infants, regularity is of the utmost importance. Such things as bathing, feeding, and putting to bed should be carried out with strict punctuality.

#### Sleep.

The younger the child, the longer the hours of sleep. Nervous children in particular should have a good allowance of sleep: twenty hours sleep in the twenty-four is not too much for an infant under three months: a child of a year needs fourteen hours sleep. Sleep should be undisturbed by household noises: let the baby be in a room by itself, or in the garden, within hearing if it should cry.

#### Clothing.

Clothing should be light and warm. A suitable list of garments is: woollen vest—flannel petticoat—frock—two napkins—woollen matinee coat—bootees.

#### Crying.

A baby may cry from hunger, or from pain or discomfort, or from habit.

The hunger cry is a wail; the baby puts its fingers in its mouth; it stops at once if fed.

The cry of pain or discomfort is louder and more insistent. The most common pain is a colicky bowel pain or "gripes"; in this the infant draws up its legs, or stretches them out, or appears to be straining, as if wanting to pass a motion. It may cease for a moment if fed, but soon refuses to feed and begins to cry again.



The cry of habit is often loud, but less insistent than the cry of pain. The cry ceases if notice is taken of the child, or if it is picked up. If left to itself, it cries itself to sleep. An example of the habit cry is in an infant whose mother has got into the way of giving it a feed in the middle of the night, or picking it up as soon as it begins to whimper. A sudden cessation of this kindly-meant but unwise attention will cause the baby to cry; but the crying habit soon ceases.

It must not be forgotten that crying, at all events in the earliest weeks of life, is a means of exercise and expansion of the baby's lungs; therefore too much attention need not be paid to crying unless it is found to be an evidence of pain or discomfort or hunger or under-feeding.

### Baby's Motion or Stool.

This should be yellow and soft; free from visible curds; the odour should not be sour or offensive. Two motions a day are usual in breast-fed babies, or even three; in bottle-fed babies it is more usual to have one motion daily. Curds or green stools are evidence that the food is not being properly digested.

### Vomiting.

It is not unusual for a baby to regurgitate a mouthful after its feed. This is of no consequence; it is of a similar character to the "getting up of wind" which all babies have after feeds. Persistent vomiting, on the other hand, calls for attention. It may simply mean over-feeding; a test feed will settle this question (see p. 32). It may mean, however, some condition of ill-health, especially when it is of an "explosive" character, and the advice of a doctor must be sought.

### Temperature.

The temperature in infancy is not a reliable guide, as the temperature-regulating mechanism is so easily



thrown out of gear. A rise of temperature is common in teething, but emotional causes may also cause a rise. Punishment, such as smacking severely, will cause a child's temperature to rise. Rises of temperature, therefore, should not cause needless alarm, though not to be ignored even if no other signs of ill-health are present. Very low temperatures in infancy are of importance; they may be evidence of low vitality.

### Bathing the Baby.

This should be done at least once a day, either morning or evening; and when once a routine is started, the same time should be observed each day.

The bath should be given in a well-warmed room, with windows closed. Everything must be in readiness before commencing. A low chair should be used; and the bath should be prepared with water at a temperature of 100° F.

Articles required are a tablet of Castile soap, a small sponge, a small bowl of boracic lotion, cotton-wool, one soft towel, one bath-towel; and of course the baby's clothes all ready to be put on.

Sit near the bath, with everything within reach. Lay the bath-towel across the knees, undress the baby, and let him lie with the towel folded over him from his feet upwards.

First carefully wash the eyes one at a time with a piece of cotton-wool dipped in the boracic lotion, using a clean piece of wool for each eye. Then cleanse each nostril with a twist of cotton wool dipped in water; next wash the face with a piece of cotton-wool dipped in water, without soap, and dry with the soft face-towel.

Next soap the head well, and rinse off the soap and dry: be careful not to let any soap get into the baby's eyes.

After this, well soap your hands, and gently rub the baby's body and limbs all over; having done this, lift the baby gently and put him into the bath. One hand should be under the shoulders and head, the other placed



FIG. 11.—Giving the Baby its Bath.

under the buttocks. Great care must be taken to support the head, and not to allow the water to get on to the head or into the eyes.



Now lift the baby out gently, and lay him on the towel, and dry by gentle dabbing; turn him face downwards and dry the back. Some baby-powder may be dusted on the skin, though this is not absolutely necessary; the baby may then be dressed, with as little turning over and over as possible.

### Fresh Air.

A baby should spend as much time as possible in the open air. His pram or cot may be put in the garden; and there, between his feedings, he will lie sleeping or playing with his fingers. If the baby is warmly covered and shielded from wind and wet, fresh air is possible even on days that are not fine. The importance of fresh air cannot be stressed too strongly.



## CHAPTER VII

### THE GROWING YEARS

THE years that pass between infancy and grown-up life may pass quite smoothly; though rufflings of the surface are to be expected, and there are several troubles and events of childhood that may be mentioned.

#### Infectious Diseases.

Measles, mumps, chicken-pox, whooping-cough, scarlet fever, and diphtheria are diseases of childhood. It is not necessary for a child to have any of them: the difficulty is, that as these diseases crop up from time to time, children are exposed to the risk of infection.

It is possible to have a child inoculated and made immune against diphtheria, and this is a wise and harmless precaution. Of the other diseases, measles, scarlet fever, and whooping-cough, may be made milder by inoculation.

#### The Child's Nerves.

Children are using up bodily energy for purposes of growth and body-building; they need rest, and the more so when school-days begin.

Too little sleep is one of the commonest troubles of childhood, and though some people blame the light summer evenings, the fault is there in winter as well.

A child of five should go to bed at half-past six or seven, and should have twelve hours of sleep: the room should be quiet, and darkened with suitable curtains.

Some nervous children are afraid of being alone, and afraid of the dark: do not distress such children by threatening punishment or by saying "How silly! go to sleep", but offer a word of reassurance, and for a time leave the door open and let the child see a light shining through.

## Lessons.

Childhood is school-time: the brain is very receptive, and recovers quickly from tiredness. Yet children differ greatly; some learn easily, others only with difficulty; but both will become tired and need play-time and rest. Play-time is not only a change of occupation and a time of rest for the brain; but it has the effect of stimulating bodily activities, producing increased circulation and deep breathing, and so helping the body to get rid of the waste products formed by brain activity.

Parents sometimes ask whether their child is doing too much at school, and there is always the possibility that lassitude and loss of appetite may be due to over-study.

During the school term weight should be observed from time to time: many children gain little in weight, or remain at a standstill, during term-time.

Sleeplessness or dreaming with talking in the sleep may result from too much study; and it is a question whether, after a long day of work—and play—at school, the few hours that remain before bed-time would not be better spent in play than in doing home-work. This is particularly true of the nervous child.

## Food.

A well-balanced diet is essential in childhood. The special requirements, in addition to or as part of a generous all-round diet, are plenty of lime salts (calcium) for the growing of teeth and bones, and plenty of vitamins to assist in the general body-building.

Calcium is plentiful in milk and in green vegetables; oatmeal porridge is another excellent calcium source, and given with milk it makes a good beginning to the day.

Sugar is a muscle-food; and children need, and will take, relatively more sugar than grown-up people.

Some children have their dislikes in foods; and though



it is perplexing to hear that a child "will not drink milk", or the other "doesn't like eggs", or a third "always leaves his rice pudding", there is always a possibility that certain foods may be upsetting to a child; for it is a fact that some children are not suited by eggs, or greens, or fats, or milk, or starchy foods, as the case may be.

Indeed, some foods are apt to bring certain children—or grown-ups, for that matter—"out in spots", or to cause attacks of vomiting or even asthma: we then say that the child or person is "allergic" to those particular foods.

Use discretion, therefore, in forcing a child to eat what he dislikes; there may be a physiological reason for what seems only a fad.

The child who cannot take greens may get his vegetable salts and his vitamins in fruit: he may be able to eat lettuce or tomato though he cannot take boiled cabbage. The child who dislikes starches may do well on sugars.

Study the child, therefore, unbeknown to himself, and be wise without pampering him.

### In the 'Teens.

Children up to the age of ten or twelve take life for granted: they do not bother much about "where baby came from"; but when the 'teens are on them, and the organs of sex begin to develop, the mind begins quite naturally to question. In the days of the last century children were "put off" with evasive or untrue answers; but, with the greater freedom which surrounds young life nowadays, such a policy is no longer possible. Children want to know.

They know that the hen lays eggs; they know that their white mice and their pet rabbits produce their little ones in much the same way; and it seems to me that the child arrived at thinking years—the 'teens—may quite easily and wisely have the fact put to him or her on the same lines, and know that mothers bring their babies into the world.



This should not be spoken of as something shameful; but the growing boy or girl may be told quite simply



FIG. 12.—Using a Tooth Brush.

and seriously by father or mother that “we do not talk about these things, but it is right that you should know them”.

### Care of the Teeth in Childhood.

The "tooth-brush habit " should be taught to a child as soon as he is old enough to toddle about. Children take an interest in brushing their teeth after meals, and thus the preservation of teeth is begun early.

## CHAPTER VIII

### THE MIDDLE YEARS

To both men and women there comes a change in the bodily activities during the middle years—we might say, the middle forties.

The years that have gone before have been our active years—our years of growing and of building; and now our powers of muscle and of brain have reached their best; our families are growing up around us; and we quieten down. Things do not move so fast with us; we are strong and well, but our activities are of a more quiet sort.

It is not that we are going down-hill: rather we have arrived at a table-land on the heights, and there we may pursue our even course for a number of years—and the number may very well depend on how we take care of ourselves.

Our brains are stored with the learning of our earlier years; and it is often said that as the bodily activities become quieter, our brains may yet do their best work.

How, then, can we take care of ourselves in middle life? What are the special dangers or pitfalls? What things must we be on our guard against?

(1) Less energy being required for physical effort, our fires require less fuel. Many people eat too much in middle life; and by so doing they throw a strain on their organs of excretion, and especially on the kidneys, which have to deal with any excess of meaty or other nitrogenous food taken in. Meals, therefore, should be less hearty as we grow older.

And not only for the sake of our kidneys should we eat less; in middle life we are apt to store up fat, and to show some broadening of the hips and prominence of the abdomen as a result.



There is a third reason, too, why we should be abstemious in our eating: the strain on kidneys and excretory organs generally has a tendency to increase our blood pressure, and a rising blood pressure is one of the things which we want to avoid.

(2) Now, we want to eat those things which shall keep us young, for that is what it amounts to: we do not want to get old before our time. Therefore, food in lessened quantities, as already said. Plenty of greens and other foods which contain roughage, so that we have the satisfaction of being full, and at the same time the comfort of knowing that the bulk we are taking will not tax our kidneys, but will encourage our bowel to perform its daily evacuation properly. Less meat; no seasoned foods; little (or preferably no) alcoholic drink. Tea in moderation: coffee is not so good. The daily evacuation is essential; if missed, then a saline aperient or senna is good, though many take liquid paraffin more or less daily.

(3) Cultivate a mind free from agitations. Loss of temper and the tendency to worry are both things which make us grow older. Therefore try to acquire the calm, untroubled mind which goes with health; and may it be your good fortune to be free from money worries, which are so often the bane of advancing years.

Have a hobby: it is a rest and a refreshment to the mind.

(4) Be temperate in exercise. The man who sits at his office desk for five-and-a-half days every week, and then comes home to a stiff week-end of gardening or a number of rounds of golf, is not treating himself with wisdom: he is over-using muscles which have been but little used during the week, and storing up fatigue products which may cost him a headache before he gets rid of them. Some exercise every day is a better rule, and moderation, with rests, at the week-end.

(5) A man should prepare himself for the time when he has to retire; and when, instead of having a day filled with work, he may find himself with a day of idleness. So many men begin to age when they retire, that it is wise to cultivate some occupation to which to turn to fill or partly fill the idle hours. Whether it be gardening or golf or taking the dog for a walk, it matters little, so long as the mind is kept occupied without strain, and the muscles are kept exercised without great fatigue.

Fresh air every day; windows open at night; plenty of sleep; and a contented mind—these are some of the things that lead on to a happy and wholesome old age.



## CHAPTER IX

### THE CARE OF THE VERY OLD

To many people it comes that they have the care of aged relatives; and this chapter is designed to help such in making old people happy and comfortable and well.

#### Food.

Old age needs less food than do the working years, and such food should be light and simple.

Many old people do not masticate well, either because of defective teeth, or because the shrinkage of their gums has made their false teeth less easy to use.

Appetite and digestion are often quite good, yet elimination is beginning to be taxed; arteries are getting hard and the kidneys are showing signs of wear. Meat, therefore, should be cut down to a minimum: fish, egg-dishes, milky foods, stewed fruit, bread and butter, and soft cheese, are more suitable foods; and seasoned foods should be avoided.

Meals must be regular: the fires of life are burning low, and the fuel must be supplied at proper times.

The last meal before going to bed must be a light one: one of the many milk-foods would be suitable—Benger, Allenbury, Farex, or other.

#### Rest.

Old people are often inordinately active; too much so, we would say. They work about in their quiet way, getting tired, and overlooking the passage of time.

They may well have their breakfast in bed, and take "forty winks" after the midday meal. If they resent the idea of going to bed early, they may nod in their armchairs in the evenings, and this they will do.



### Exertion.

In old age, muscles and blood-vessels alike have lost much of their elasticity, and do not answer well to the strain of exertion. It is important that old people should be active; a purpose in living, and a useful light occupation, will help them, but they should not hurry; their exercise and work should be gentle and leisurely. Bones in old age are brittle; a fall, or even a sudden and violent muscular effort, may result in a broken limb.

### Temperament.

Old people are apt to be crotchety and to resent interference. They have a lifetime's experience behind them, and deserve respect for that: yet their judgment and their knowledge may not be up-to-date, and tact is needed in dealing with them in their opinions and views, their likes and dislikes. It is a wise son or daughter who has the understanding mind and the firm but lovable way.

### Warmth.

Their circulation being less active than formerly, old people feel the cold. They like plenty of clothes; they like the windows shut. They feel draughts, and blame them for coughs and twinges of rheumatism. Within moderate limits their whims must be respected; the fires of life are low—body-warmth is not so easily produced—and extra clothing is required. But the endless wrappings that we sometimes see are bad; they prevent the access of air to the skin, and promote an unwholesome state of perspiration.

Good woollen underwear is necessary, and an overcoat for out-of-doors; and old people should avoid great changes of temperature without due preparation.

### Cleanliness.

Cleanliness of the skin is important, and yet the aged person may not be able to take a bath in the ordinary

way. Immersion in hot water is relaxing to a feeble circulation: baths are slippery, and there is the difficulty of getting in and out of them: a fall may mean a broken bone. In the old and feeble, a "wash down" or a limb-by-limb wash in bed—the "blanket bath"—may be used, not less than once a week.

Care must be taken over the trimming of toe-nails: long and pointed nails may lead to an accidental scratch in bed, and the resulting sore will be slow to heal.

On the other hand, nails in old age become thick and brittle, and are not easy to cut. The sense of feeling being less acute, it may happen that a tear is made unnoticed at the side of the nail, and this again may lead to a very sore toe.

### Care of the Skin.

The skin in old age loses its elasticity and becomes wrinkled: it is specially liable to eczema; and its circulation being less efficient than in younger days, its vitality is lowered.

Be very careful with old folk who have to lie in bed: they are very prone to pressure sores, and ulcers quickly form over bony places—such as the heels, the hips and back, and the shoulder-blades: such ulcers are very slow to heal.

In caring for bed-ridden old people, over any bony points the skin should be wiped daily with methylated spirit, and then dusted freely with an antiseptic dusting-powder. All wrinkles and lumps in bedding and sheets must be smoothed out. Change of position is valuable, by saving any one part from too long pressure. When skin is broken, a zinc ointment may be used, or a paste of zinc oxide and castor oil; and in the case of bedridden old people it is well to have an air-cushion or a water-bed to equalise the pressure on the skin.

### Care of the Bowels.

Aged people are often constipated; and if this has become a long-established habit, it is not very likely that



the regular daily evacuation will ever be established again. But a clearance of the lower bowel should be effected at regular intervals—every two or three days at the least; and with this object in view an aperient must be given.

Suitable opening medicines for old people are senna (from six to twelve pods, soaked, or one of the palatable preparations of senna now available) and cascara (a teaspoonful of the liquid extract): these medicines are given at bedtime. Liquid paraffin may be tried; it softens the bowel contents, but does not act as a purgative on a constipated bowel: an aperient should first be given, and when this has acted, the liquid paraffin—from a teaspoonful to a tablespoonful as required—is given regularly after the three principal meals each day.

A complaint of diarrhœa in old people, with the frequent passing of small stools, may mean that a hard, constipated mass is retained in the lower bowel and is causing irritation. If this is so, an enema of warm, soapy water will usually effect a clearance, or a few ounces of olive oil, or olive oil substitute, may be injected as a means of softening. The presence of such a constipated mass should be verified by a doctor, as a slimy or blood-stained diarrhœa may mean an actual disease in the bowel.

### In Illness.

The lungs in old age easily become water-logged—or, in more scientific language, they are liable to hypostatic congestion—for the circulation is less vigorous, and there is a tendency for the blood to flow sluggishly, or even to stagnate in the lower portions of the lungs. For this reason the aged patient should be propped up with pillows, and not allowed to lie too flat.

There is a certain apathy in the illness of old age; pain does not appear to be felt so keenly as in younger life, and so complaints of pain should not be treated lightly, but a cause sought.



Many old people have a winter cough, due to chronic bronchitis. A simple cough linctus is useful for this; and the advantages of fresh air must not be forgotten.

Breathing being impaired, the intake of oxygen is lessened, and this must be corrected by a constant supply of fresh air.

Windows should be widely opened, and any feeling of draughts must be met by the proper use of screens and the proper placing of the bed.

## CHAPTER X

### NURSING AT HOME

#### The Nurse Herself.

IN dealing with sick people there are certain qualities in a nurse, whether she be amateur or trained, which help considerably: these are patience, sympathy, cheerfulness, a quiet manner, combined with quickness to observe and an untiring devotion to all efforts for the well-being of the patient.

The nurse should look carefully to all details in the toilet and welfare of the patient; she should obey the doctor's orders; and watch for and recognise any changes and signs in the patient's condition which may aid those with greater skill and knowledge to form accurate opinions and diagnosis.

It is the duty of everyone who is in contact with the sick to keep in good health, and to keep fit and fresh in mind and body.

Sufficient rest is necessary.

When in contact with the sick, the nurse should try to get at least seven hours of sleep in the twenty-four, and should be in the fresh air for two to three hours daily.

Sitting in the garden with the feet up, or even a bus ride, will be both restful and beneficial.

Personal cleanliness is essential: the nurse should take a warm bath each day if possible; the finger-nails should be kept short and the hands clean and free from cracks and abrasions. Chaps and sores may easily become infected.

Brush the teeth night and morning; and keep the bowels regular, for which purpose plenty of fresh fruit and green vegetables should be taken, and plenty of exercise in the fresh air.

Meals for the nurse must be taken at regular intervals of not more than four hours; and it is unwise for a nurse



to attend to a sick person unless she has had food within a reasonable time. The nurse should not eat in the sick-room.

**Dress for the nurse.** If possible a white overall should be worn, or a dress of washing material. Shoes must be comfortable, because long hours of standing may be necessary.

**Manner.** A nurse must show kindness and sympathy; but it is also necessary at times to show firmness. The health and comfort of the patient must be the first thought; and tact and understanding will often effect what would otherwise fret or distress the patient.

The nursing of the sick entails responsibility and consequent strain: the nurse cannot give adequate help if she is not fit herself.

### The Sick-Room.

The sick-room, if there is a choice, should face south or south-west, so as to have the benefit of the sun in the afternoon and evening.

**Quiet** is essential: the room should not be where there is much activity. The bathroom and lavatory should be within easy access; so that the various sick-room requisites may be kept there instead of in the room itself.

There should be a gas-ring or a fireplace—or even a spirit-lamp—so that food and water may be heated as required.

**Good ventilation** is essential. There must be an outlet for foul air and an inlet for fresh air, and at the same time draughts must be avoided. Foul air rises, and therefore the outlet should be near the ceiling; the inlet lower, but the incoming current directed upwards so that the air is warmed before it reaches the patient. A sash window which can be opened both top and bottom is good: screens may be placed about the bed so as to avoid direct chill.

If fresh air is required in special abundance, extra warmth may be given by hot-water bottles and blankets.



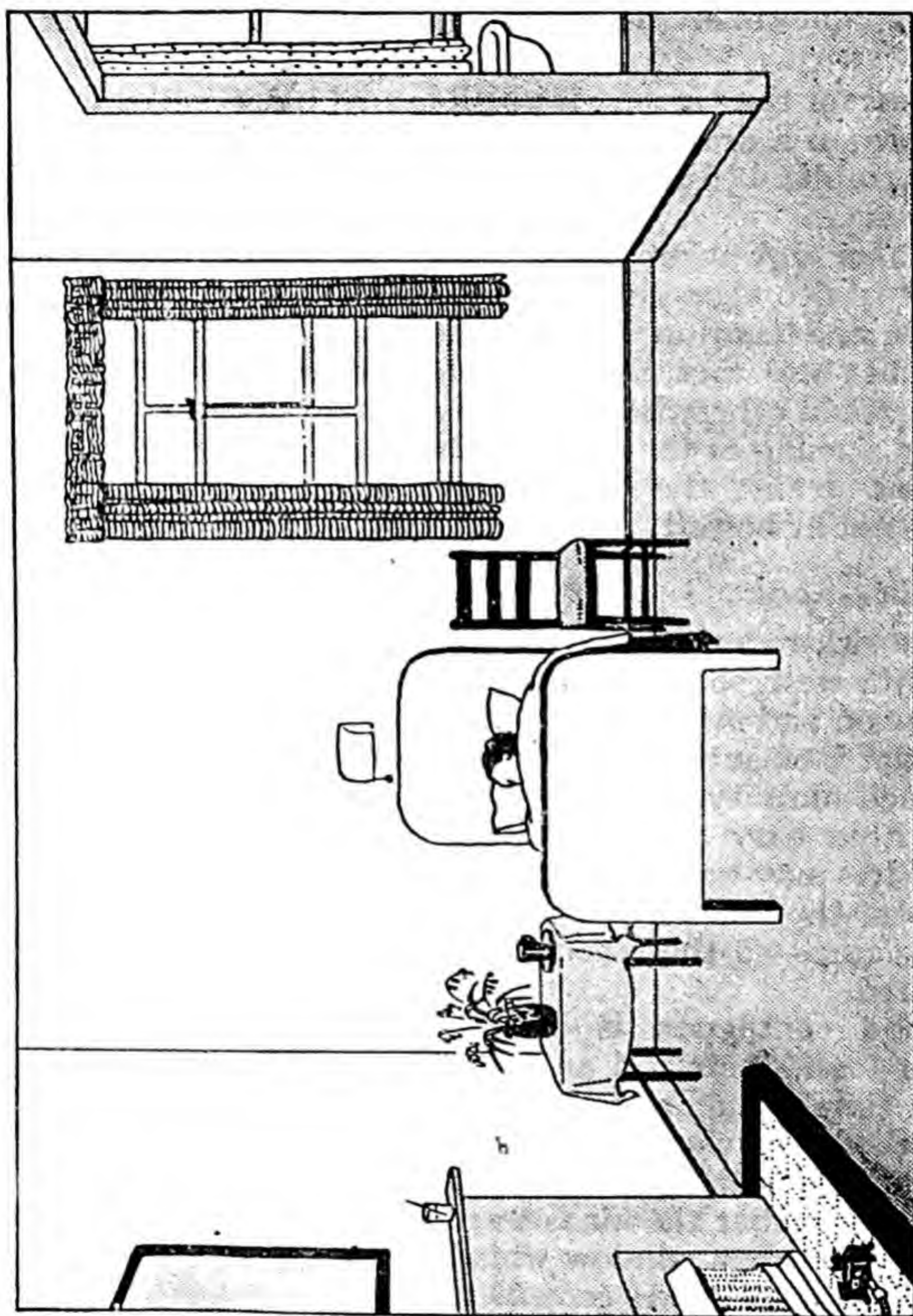


FIG. 13.—The Sick Room.

The temperature of the sick-room should be kept as near to 60° F. as possible.

**Cleanliness** is essential in the sick-room. A vacuum-cleaner or carpet-sweeper may be used; if this is not possible damp tea-leaves (or sawdust) must be sprinkled on the floor before sweeping. This prevents the dust from rising; and after sweeping, the dust must be collected and burnt.

In cases of infectious illness no rugs must be allowed in the sick-room: all sweepings must be burnt in the room.

Dusting should be done with a damp duster. The grate should be cleaned each morning before the sweeping and dusting are done: at night a coal-glove should be used in making up the fire, or the pieces of coal may be ready wrapped in newspaper, so that the fire may be made up quietly and without soiling the fingers.

Flowers give a cheerful appearance to a sick-room: the water must be changed daily, and the flowers removed from the room at night.

The bed should be so placed that the light shines upon the patient from the side: to lie all day facing a window is trying to many people. Artificial lights should be shaded.

A single bed is the easiest on which to nurse a case of illness: it should stand clear of the walls on each side. The bedding should consist of a hair mattress, or one of a mixture of hair and wool. This should be covered with a strong ticking, and the whole encased in a loose, washable cover. It may be necessary to have a mackintosh sheet the length and width of the bed; this is covered with a sheet, and over the sheet a "draw" mackintosh and draw sheet reaching from the shoulders of the patient to his knees. When hot or "crumby", this can easily be drawn through and a cool, fresh part brought under the patient: if stained, it can easily be replaced by a fresh one.

The blankets should be made of wool, to provide the necessary warmth with a minimum of weight.



Pillows may be made of feather or flock; the latter is better if the patient has to be propped up in bed. A small pillow is very useful to tuck under an aching limb or back.

The quilt should be light, and made of washable material.

All bedding should be kept scrupulously clean; and to remove stains the soiled articles should be placed in cold water immediately. Needless to say, all bedding and clothing must be thoroughly dried.

A word may be added about visitors.

Rest and quiet are essential in a sick-room; therefore visitors should not be allowed when the patient is resting, nor when he has been tucked up for the night.

The visitor should avoid asking the patient questions, for the answering may be a fatigue to a sick man or woman; some cheerful news or conversation will do more good.

## SOME POINTS IN NURSING

The processes of elimination, or the getting rid of the waste products from the body, have been mentioned in an earlier chapter.

It may be useful to recall the three main modes of elimination.

- (1) Perspiration, or skin action.
- (2) Micturition, or kidney action. (Micturition means the passing of urine.)
- (3) Defæcation, or bowel action.

About a pint of fluid is got rid of by the skin, in the form of perspiration, in the twenty-four hours; and about two-and-a-half pints by the kidneys in the form of urine.

In hot weather urine is less and perspiration more than the average quantities; and urine is increased in diabetes and lessened in feverish conditions and in kidney disease.



### Retention of Urine.

This sometimes happens as a result of shock. The nurse can assist the patient by placing hot cloths to the lower abdomen and putting hot water in the bed-pan, at the same time giving a hot drink: the sound of a trickling tap will sometimes assist the patient to pass water. If none of these measures succeed, it is the duty of the nurse to report to the doctor.

### Action of the Bowels.

There should be a daily action of the bowels; and the material passed should be inspected by the nurse, and a note made of anything abnormal, such as worms, or blood, or mucus (slime).

If the patient fails to have an action for three or four days, it may be necessary to give an enema.

### Giving an Enema.

The things required are a Higginson's syringe, a mackintosh, or towel, "Vaseline" Petroleum Jelly, a bed-pan, cotton-wool, and a bowl of warm soap and water (soap without soda must be used) at a temperature of 95°-100° F. Have everything to hand.

Roll the patient on to his left side, and place the towel or mackintosh beneath him, and have the knees drawn up.

Expel air from the syringe by placing both of its ends in the warm soapy water and squeezing the bulb a few times. Smear the nozzle with "Vaseline" Petroleum Jelly, and insert it gently into the opening of the bowel, taking care that the other end of the syringe remains under the surface of the soapy water. When all the water has been injected (usually from a pint to a pint and a half), and this is done by gentle squeezing of the bulb of the syringe, withdraw the nozzle and encourage the patient to remain on his side for a few minutes; then place him on the bed-pan. After evacuation is completed, remove the bed-pan carefully to avoid spilling, roll the

patient on to his left side again and wash. Always empty such vessels as bed-pans and urine-bottles immediately after use; wash them out with an antiseptic solution, and keep them scrupulously clean.

### Hot-water Bottles.

All hot-water bottles should have thick covers, and the rubber bottles filled three-parts full with very hot, but not boiling water. Make sure that every hot-water bottle is perfect, and that no leak is possible; and be especially careful that no part of an uncovered hot-water bottle comes in contact with the skin, and particularly when the patient is unconscious. Burns have been known to occur, a very distressing thing for both patient and nurse.

### Giving a Blanket Bath.

A bed-ridden patient should be washed all over at least twice a week. Have everything in readiness before beginning. Close the bedroom window, so that the patient is not in danger from draughts.

Articles required : a bowl of warm water; a jug of hot water to add in order to maintain the heat as you proceed; soap; two flannels—one for the face and hands; one for the body; two warmed towels; two old blankets; a warmed gown; a clean sheet if required; a hot drink to follow, and a hot-water bottle in readiness; brush and comb; tooth-brush and glass; methylated spirit and talc powder; scissors.

Procedure : strip bed to the top sheet, and cover this with one of the old blankets; then gently remove the sheet from under the blanket by pulling it down. Do not expose your patient unnecessarily. Then remove the pillows, leaving only one. Next roll your patient on to one side; have your other old blanket rolled lengthwise, and proceed to roll this towards the patient. Then gently roll the patient back on to the blanket and straighten it out beneath him.



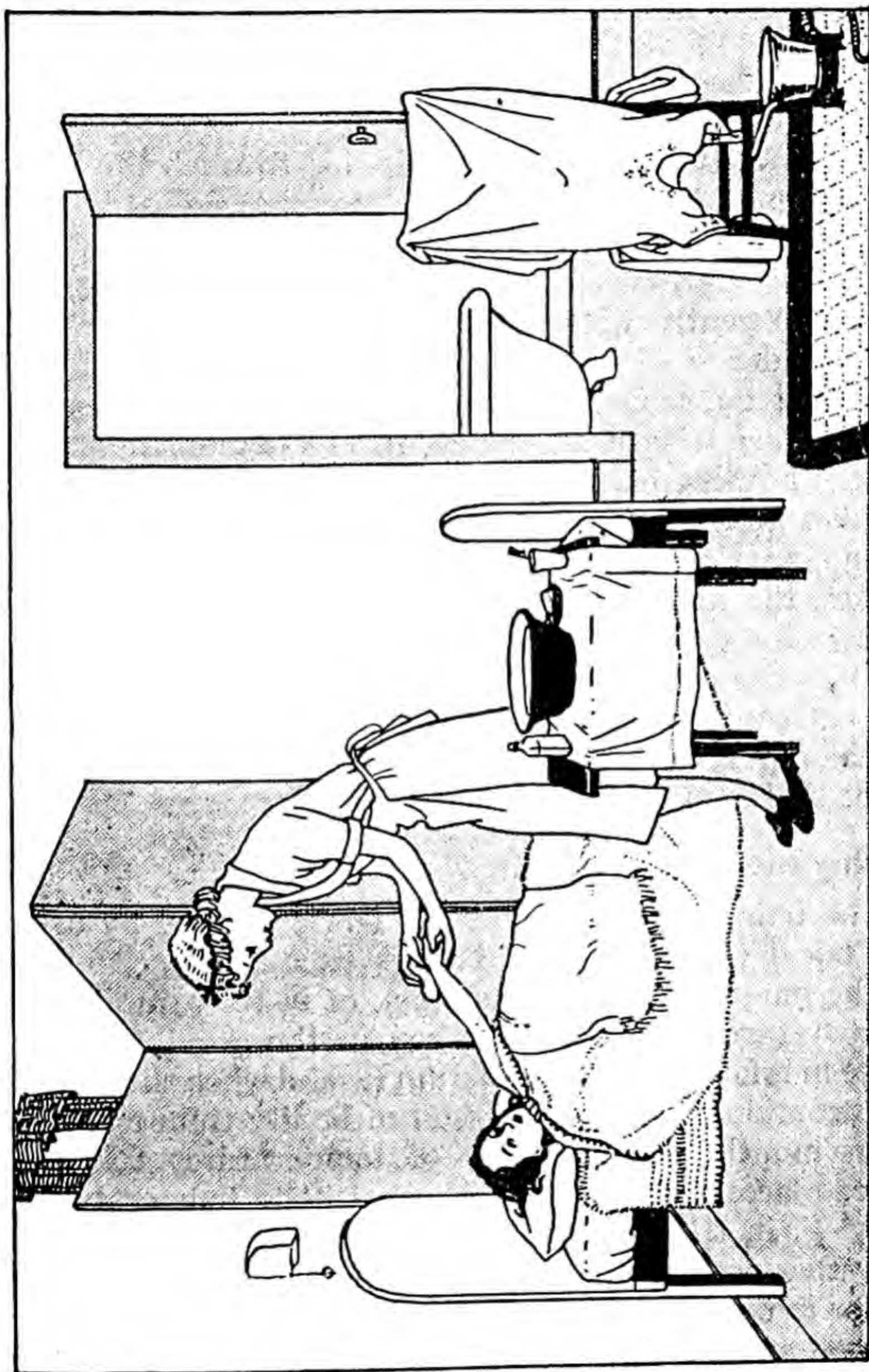


FIG. 14.—The Blanket Bath.



Remove the patient's gown.

Now wash and dry the patient in stages, beginning with face and neck, then hands and arms, chest and abdomen, legs and feet, taking care to dry each part as you go along.

Next roll the patient on to his side to wash the back.

Care must be taken with all "pressure points", such as shoulder-blades, heels, and lower end of back. Well wash these parts with soap and water, dry carefully, and then rub gently with methylated spirit and dust with talc powder.

Having got so far, remove the under-sheet if necessary, and replace with a clean one, in the manner described for the bathing blanket, of course removing the bathing blanket at the same time. Be careful to see that there are no creases or crumbs under your patient. This done, put on the warmed gown, and proceed to make up the bed.

Then the mouth and teeth should be attended to, if the patient is not able to do this for himself. Clean the teeth and give a mouth-wash. Brush and comb the hair; and finally give the hot drink.

### Taking the Temperature.

The temperature of the body is ascertained by using a clinical thermometer. This is usually placed either in the mouth (under the tongue), or in the armpit; but temperature may also be taken in the groin (a useful place in infants), or in the rectum (useful when the patient is unconscious, or if, by reason of bodily thinness or an open mouth, the accuracy of temperatures taken in other places is doubtful). Normal body temperature is  $98.4^{\circ}$  F. in the evening; slightly lower in the morning. The thermometer should be kept in disinfectant, and rinsed in cold water before and after use. After registering a temperature the column of mercury in the thermometer must be carefully shaken down in readiness for the next occasion. In fevers the temperature may rise

as high as  $105^{\circ}$ ; and it is the duty of the nurse to report any unusual temperature to the doctor in charge of the case.

### Hot and Cold Applications.

A cold compress, commonly used for such injuries as sprains, consists of a double fold of flannel or lint of the required size, wrung out of ice-cold water and applied to the limb. The compress should be covered with a layer of cotton-wool and lightly bandaged in position.

A hot fomentation consists of a double fold of lint or flannel, of the required size, wrung out of boiling water. To prepare a hot fomentation, place the lint in a folded towel or piece of linen, and twist; place this in a bowl with the ends of the towel hanging over the edges. Pour boiling water over the centre of the twisted towel, and when thoroughly soaked, wring out as dry as possible; then unroll the towel, give one quick shake to the fomentation to free it of steam, and apply the fomentation carefully to the affected part and cover with cotton-wool and bandage.

### A Linseed Poultice.

Materials required: a piece of old linen of the required size; linseed meal; a basin and jug; two plates; a spoon or large knife; a pastry-board, and boiling water.

All utensils must be warmed, so that the poultice is as hot as possible. The patient must be prepared before the poultice is mixed; the part to be poulticed is made easily accessible, but not exposed. If the poultice is for the chest, a roller towel is put into position under the patient's back. Wool to cover the poultice is placed near at hand; and the bed-clothes are tucked up under the chin to prevent the patient from becoming chilled.

### Making the Poultice.

Place the knife or spoon in the jug and fill with boiling



water: have the bowl, board, and linen in readiness on the table, with the two plates warming in the oven until wanted. Pour the required amount of boiling water into the bowl: with the left hand sprinkle in the linseed meal, stirring with the spoon or knife held in the right hand until a firm, stiff paste is obtained. When the paste comes cleanly away from the bowl, spread it quickly and evenly on the linen and turn over the edges: fold the poultice together and place between the two hot plates, and take to the bedside and apply as quickly as possible, taking care that the poultice is not so hot as to burn the patient. When in position, cover with wool, and bandage by pinning together the roller towel. To prevent burning, a little olive oil or "Vaseline" Petroleum Jelly may be smeared over the skin.

### **Kaolin Poultice.**

This is a special preparation, sold in tins, which retains its heat for a considerable time, and is preferred in many cases to the linseed poultice because it is clean, effective, and need not be changed more than once in the twenty-four hours. The tin or container is placed in a saucepan of boiling water until the contents are thoroughly hot; then the hot paste is spread thickly (one eighth of an inch or more) on a piece of lint or linen of the required size, and the edges are folded over to prevent leakage: the poultice is then applied directly to the skin, and left for as long as twenty-four hours, when it peels off easily.

Before applying a kaolin poultice the heat must be tried with the back of the hand, to avoid the possibility of burning: the poultice should be "comfortably hot".

### **Mustard Poultice.**

Equal quantities of dry mustard and flour are mixed with tepid (not hot) water until a stiffish paste is obtained: this paste is spread on brown paper of the required size,

then covered with a layer of muslin and applied to the affected part and removed after about twenty minutes. The action of this poultice is similar to that of a "mustard leaf".

If the skin is reddened, it may be covered with lint after the poultice is removed, or with a "Vaseline" Petroleum Jelly or boracic-ointment dressing.

A variation of this poultice is made by mixing one part of mustard with eight or ten parts of flour in the same way, and spreading the paste on a handkerchief. This may be left on for two hours or more: the action is thus more gentle and prolonged.





## CHAPTER XI

### FOR THOSE IN THE TROPICS

THE dangers to health in the tropics are of two kinds; those connected with the climate and heat, and those due to the special diseases prevalent in hot countries.

#### The Climate and the Heat.

Avoid over-exertion in the hot hours of the day, and avoid long exposure to the sun.

Be lightly clad, and have the head well protected: the light sun-helmet (solar topee) is useful as a head covering.

Protect the eyes from glare.

Be careful not to get chilled in the cool breeze that comes in the evening.

Be cautious in the use of alcoholic drinks; indeed, they are not necessary, and are best avoided altogether.

Be moderate in the use of butcher's meat: meat should be fresh, and fully cooked to prevent parasite infection.

### TROPICAL DISEASES

These are conveyed either by bites, or by infected food or drink.

Common diseases conveyed by insect bite are Malaria and Sleeping Sickness, and Tick Fever (also known as Relapsing Fever). Diseases caused by contamination of the skin are Hookworm Disease, common in those who go barefoot; and Bilharzia, due to indiscreet walking and bathing in pools.

#### Heatstroke and Sunstroke.

These are two different conditions. Heatstroke is seen in those who work in very hot conditions—for

example, ships' stokers in the tropics. In collapse from heat there is dizziness, followed by faintness and unconsciousness. The pulse is feeble; and stimulants will have to be used.

In sunstroke as much of the trouble is due to glare as to actual heat, and the eyes should be protected by dark glasses if a long time is to be spent in the bright sun. It is also important to protect the back of the neck and the spine, as well as the head.

In sunstroke the face is flushed and the temperature raised, together with dizziness, faintness, headache, and vomiting. The treatment of sunstroke is to place the patient in the shade; loosen all tight clothing; and apply cold-water cloths to the head and neck.

### Malaria.

This is caused by the bite of the anopheles mosquito; it is therefore of the utmost importance to avoid being bitten. A mosquito net must be used for the bed, and every mosquito seen in the room must be killed.

Mosquitoes settle on walls, and the malarial mosquito may be known by the attitude it takes when resting: the body does not lie parallel to the wall, but stands out at an angle.

Mosquitoes breed in still water; therefore do not live near a swamp, nor have pools of water near the house. Even small tins or pans of water are a danger. If the water cannot be got rid of, a sprinkling of kerosene oil on the surface will kill the larvæ of mosquitoes.

Do not live close to native dwellings; there are always more mosquitoes there, and not only are you more likely to be bitten, but the mosquitoes are more likely to be infected with malaria.

If you are heated, rub down and change as soon as possible; and do not take cold baths when you are hot.

The signs of malaria are periodical attacks of violent shivering, with headache and a general feeling of illness, and a rise of temperature. This stage of shivering,



known as the "cold" stage, is followed in an hour or two by a "hot" stage, and this in turn is followed two or three hours later by perspiration and a feeling of relief with exhaustion.

Old residents in the tropics may have a chronic malaria without high fever, the only signs being a feeling of malaise, and health generally below par. This state



FIG. 15.—*Top* : Culex. *Bottom* : Anopheles.

of chronic ill-health is sometimes the precursor of black-water fever (see p. 73).

The prevention of malaria lies in the avoidance of being bitten by the malarial mosquito; and in malarious districts a five-grain tablet of the bi-hydrochloride of quinine may be taken daily as a precaution.

The treatment of malaria is summed up in the word "quinine", and this may mean quinine in many forms.

The five-grain tablets of the bi-hydrochloride are convenient and digestible; they should be in every household in the tropics, and in every travelling-box.

Atebrin is a modern advance both in treatment and in prevention. It is put up in tablets of one-tenth of a gramme: during the attack one tablet is given three times daily for five days, and for prevention two or three tablets on one day in each week.

During the attack the patient should be in bed, with blankets and hot-water bottles, and a dose of opening medicine should be taken.

Anæmia usually follows an attack of malaria; this is treated by giving iron in some form—such as a Bland's pill, or one of the compound iron tablets—with each meal.

### Black-water Fever.

This is a severe form of malaria in which altered blood appears in the urine, and the urine is almost black.

Absolute rest in bed is imperative; and owing to the weakening effect of the disease upon the heart-muscle, the patient should not sit up suddenly for fear of collapse.

A person who has had black-water fever should leave the tropics, and in the opinion of many it is doubtful whether he should ever return.

### Sleeping Sickness, or Trypanosomiasis.

Sleeping sickness is caused by the bite of the tsetse fly. It is of the utmost importance to avoid being bitten; therefore keep away if possible from areas infested with the tsetse fly. In such areas wear gloves, and do not wear shorts which leave the knees bare. The fly is mostly in the forests where big game abounds.

Sleeping sickness in its early stages may be mistaken for influenza or malaria, and therefore residents in tsetse-fly country should have a blood-examination carried out in every case of feverish illness.

Sleeping sickness is a prolonged disease; there is a first stage of general feeling of illness, with some fever; then enlargement of lymphatic glands, which may be



felt as small lumps, first in the armpits and then at the sides of the back of the neck.

There follows a second stage of increasing weakness and sleepiness.

Sleeping sickness is curable if taken in time; but the treatment should be in the hands of a doctor. Therefore, in any case with signs suggestive of sleeping sickness, arrange for transport to the nearest doctor or hospital, even though this may mean a long and tiresome journey.

### Tick Fever, or Relapsing Fever.

This is caused by the bite of a louse, and it is therefore important to rid house and bedding of lice. Tick fever may be serious; the onset is acute, with vomiting, headache, and rise of temperature.

Jaundice often develops.

## DISEASES CONVEYED BY FOOD AND DRINK

Of these the chief are Dysentery, Typhoid Fever, and Cholera. The chief carriers of these diseases are water, milk, salads, and fruit. Water for drinking should always be boiled; milk also. Lettuce for salads should be washed in a solution of permanganate of potash—enough of the crystals in water to produce a cherry-pie-juice colour, or roughly one in four thousand. This solution is non-poisonous, and also practically tasteless.

If water cannot be conveniently boiled, it should be chlorinated; tablets for this purpose are sold.

### Dysentery.

The signs of dysentery are abdominal pain with diarrhoea, the motions being slimy and blood-stained.

There are two types of dysentery, caused by different organisms; the bacillary type is the more severe, and occurs in epidemics; the amœbic is the type usually found in the East.

Treatment is in the first place preventive, by taking precautions about water and milk, and by keeping all food covered from flies. The servants in a household can be a source of danger, as their habits are not always clean.

Curative treatment means rest in bed, and avoidance of all solid food. While the blood-stained diarrhoea persists it is wiser to withhold milk; but give plenty of water (boiled), and water with white of egg, or water with glucose or sugar.

When the acute diarrhoea has subsided, then milky foods may be given as a preliminary to the cautious introduction of solid food. Butcher's meat is best avoided.

It may be added here that all material evacuated from the bowel in a case of dysentery should be destroyed by burning, or mixed with a strong disinfectant.

During the first stage of the disease, when pain and straining and blood-stained diarrhoea are causing distress, hot cloths should be applied to the abdomen, and a one-grain opium pill or thirty drops of chlorodyne given to relieve. Any specific drugs for dysentery must be left to the discretion of a physician.

### Typhoid or Enteric Fever.

A disease which runs a course of three or four weeks, with fever and great prostration.

The onset is slow: headache and a feeling of ill-health are often the first signs. The tongue is coated; and though to begin with the bowels are usually constipated, a "pea-soup" diarrhoea may develop.

By the end of the first week there are usually a few spots to be seen—small rosy-pink raised dots near the border of the ribs. The tongue remains coated, but is characteristically red at tip and edges. As the second and third weeks pass, the patient is often very



ill, and hæmorrhage may occur from the inflamed and ulcerated bowel.

The temperature falls gradually, but relapses are liable to occur.

**Treatment.** Prevention is of the greatest importance; and it may be said emphatically that everybody who goes to the tropics should be inoculated against typhoid. By means of two doses of bacterial vaccine injected under the skin at an interval of a week, a high degree of protection is obtained, and the headache and slight feverishness which often follow the inoculations for a day or so are well worth "putting up with".

Inoculation should be repeated—in the case of people resident in the tropics—at least every two years: some experts advise an annual dose.

During the attack the patient must remain in bed, even though the case be a mild one.

### Cholera.

This is a severe epidemic disease, occurring in hot countries, and especially in India.

The signs are profuse and watery diarrhœa, with cramps and a feeling of intense weakness and illness, all occurring in the course of an epidemic or in a district where cholera is known to exist.

The treatment is, first, preventive.

In cholera districts all water and milk must be boiled, and no raw vegetables or raw fruit eaten. Personal cleanliness is essential.

During the attack, chlorodyne, from fifteen to twenty drops to the dose, may be given every four hours to control the pain and diarrhœa; and body-warmth must be maintained.

The most serious feature of cholera is the great loss of fluid from the body; for this reason as much boiled water as possible must be taken by the mouth. The water may be plain, or with sugar or glucose.

If a doctor is available, salt and water (a teaspoonful

of common salt to a pint of boiled water) may be administered at blood heat in other ways; either by needle and tube into the loose tissue beneath the skin, or directly into a vein.

In connection with cholera, it must not be forgotten that persons going to cholera districts can be inoculated against the disease.

### Leprosy.

This is a very chronic and disfiguring disease, no longer occurring in the British Isles, but found mostly in the East and in tropical Africa.

It is contagious; but long association appears to be necessary before it is acquired: the disease takes from six months to three years to appear after contact. Leprosy seems to be a disease of poverty and under-feeding.

Leprosy occurs in two main forms.

In one, the chief signs are nodules and ulcerations, typically seen on the face: in the other, patches of lost feeling appear, with gradual decay of fingers and toes. Leprosy is very slow and long lasting; and blindness is common in the later stages.

The treatment of leprosy has undergone a spectacular change during recent years. Whereas formerly some amelioration of symptoms might be brought about by the administration of the oil pressed from the nuts of the *hydnocarpus*, now it has been found that one of the "sulpha" group of drugs (sulphone) causes a disappearance of symptoms in a quite remarkable way, so that persons with leprosy treated early in the disease are apparently cured. In advanced cases the deformities brought about by the disease remain, but the hope of life and a measure of health are restored. Fresh air and good food remain as important factors in treatment.

### Snake-bite.

The treatment of a person bitten by a poisonous snake should be on the following lines.



(1) Tie a cord or string round the limb above the bite —*i.e.*, on the side of the bite nearest to the heart. This should be above the knee or elbow, around the thigh or upper arm, as below knee and elbow the blood-vessels are between the bones, and so out of reach of compression. This must be done promptly, so that the poison has no time to get into the general blood-stream.

(2) Make cuts where the bite has occurred, and then rub in permanganate of potash. The effect of the cuts is to cause bleeding, and so allow some of the poison to flow out: also the cuts make it possible for the permanganate to reach and neutralise the poison in the flesh.

(3) Give sal volatile (aromatic spirit of ammonia), teaspoonful doses in water: this acts as a good and quick stimulant. If this is not available, give alcohol in the form of whisky or brandy.

(4) Keep the patient at rest, and warm.

(5) If the appropriate anti-snake-bite serum can be obtained, this should be given (preferably by injection into a vein).

## CHAPTER XII

### A CHAPTER ON FIRST AID

THE first object of First Aid is to save life.

But all injuries are not so serious as to threaten life, so we must add a second and a third object: to relieve pain and to promote recovery.

To save life we must combat those things which are endangering life; and of those things the most important are hæmorrhage (or loss of blood), suffocation, and shock.

#### Prevent Loss of Blood.

Loss of blood may mean loss of life if allowed to continue profusely; therefore our first rule in first aid is to stop hæmorrhage—in other words, to stop bleeding.

Blood may be gushing from a wound, flowing steadily from a large vein injured, or pumping rhythmically from

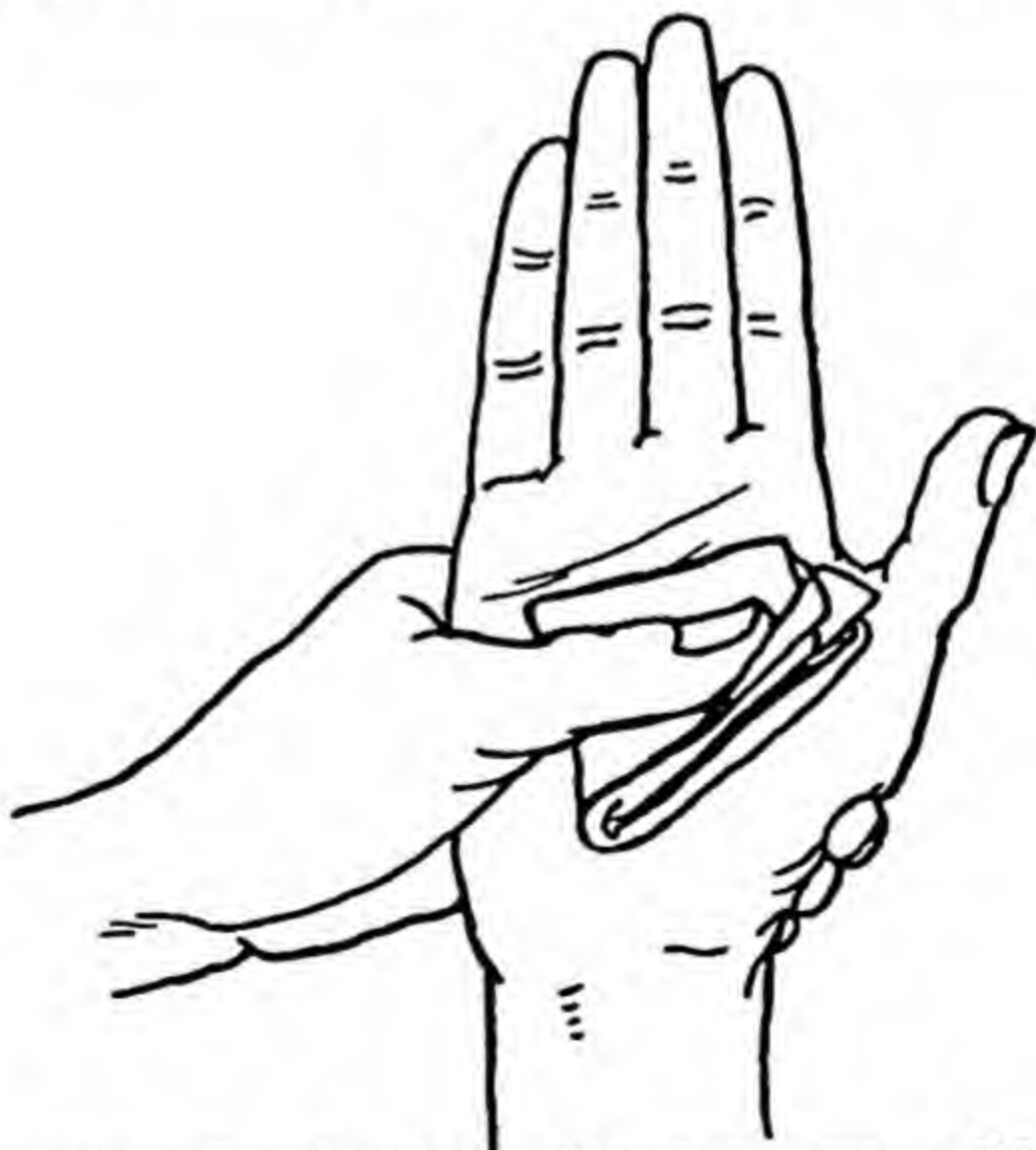


FIG. 16.—Applying Pressure over a Wound.



a severed artery: pressure will stop bleeding, so the first thing to do is to apply pressure over the wound. Pressure may be made with the hand, preferably over a

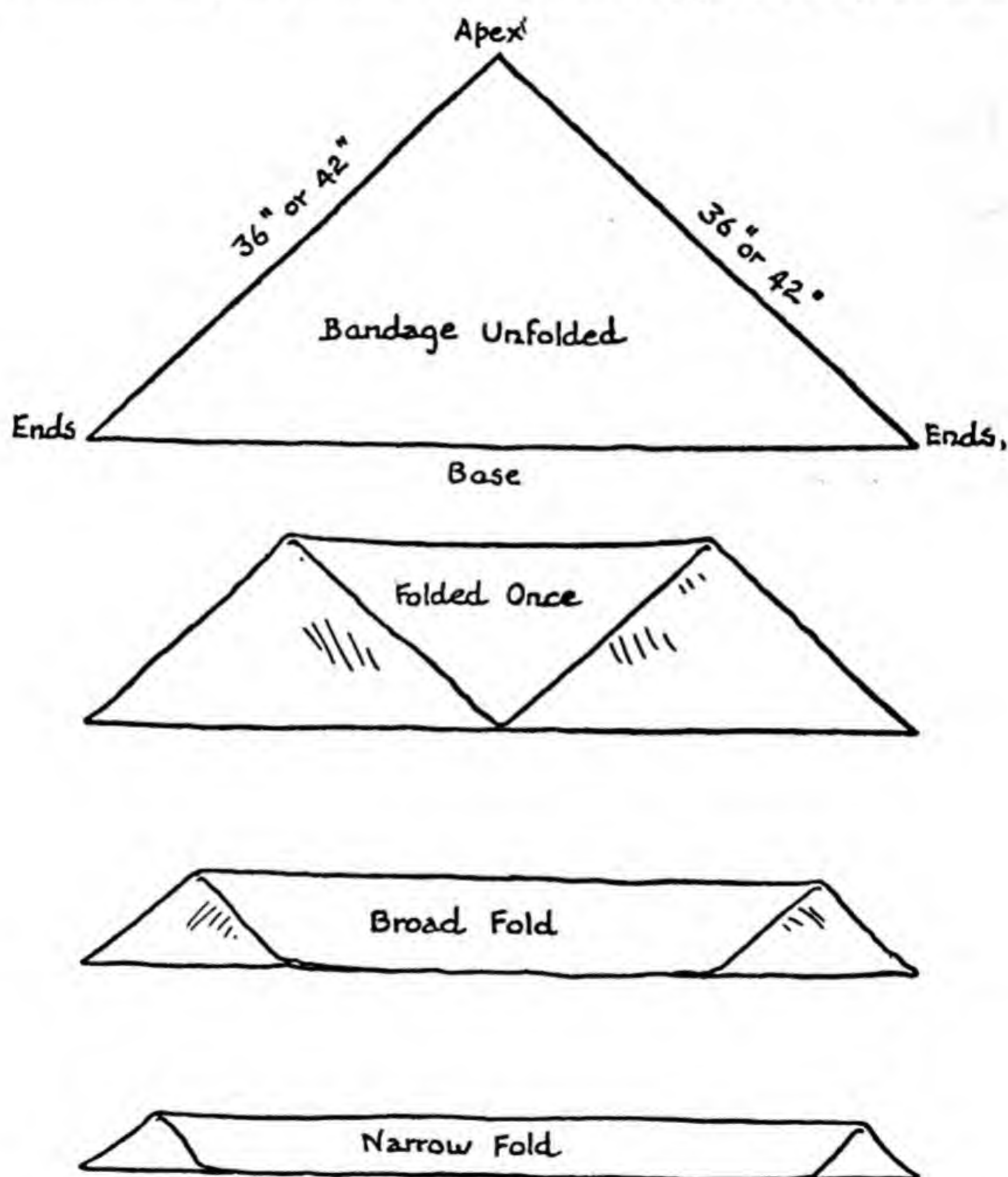


FIG. 17.—Folding a Triangular Bandage Cut from Half a Square.

clean handkerchief or dressing, or a pad may be placed over the wound and a firm bandage used to keep it fixed.

There are two conditions in which pressure must not be applied; and those are:

(1) If jagged pieces of broken bone are visible, and

(2) If there is reason to suspect that bits of broken glass or fragments of metal, such as bomb splinters, may be in the wound; for, naturally,

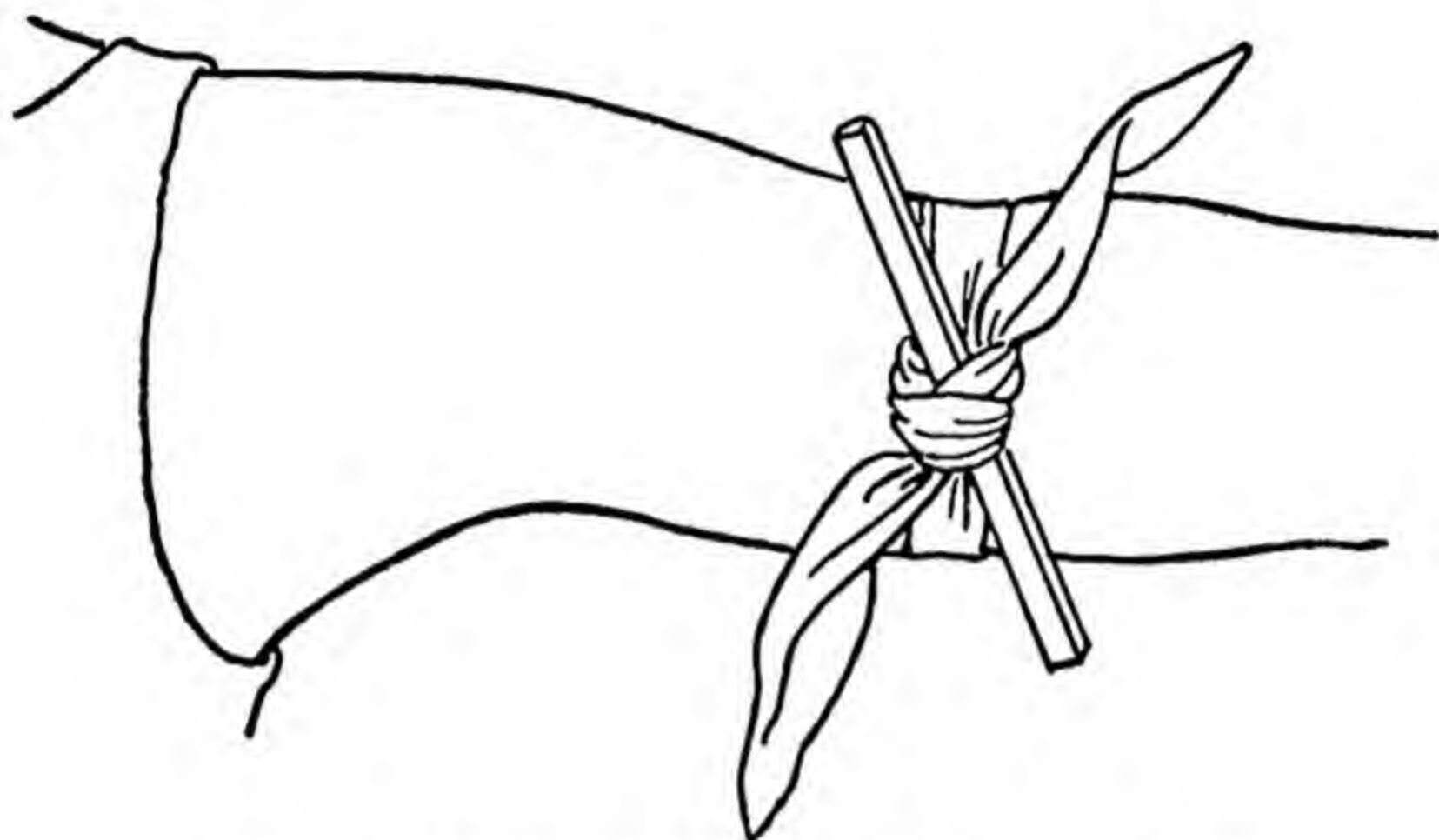


FIG. 18.—Applying Tourniquet to Upper Arm.

pressure over such things will only make the wound worse.

So our rule must be, apply pressure in suitable cases.

In an arm or a leg, if the wound is not suitable for pressure, or if the bleeding goes on severely in spite of pressure, then a means must be found of stopping the circulation in the limb. This is best done by a tight band round the middle of the upper arm or the middle of the thigh; such a band is called a tourniquet. A large handkerchief, folded cornerwise into a narrow band, is tied round the limb; a second knot is made with a stick passed through it; and twisting the stick will tighten



the band as much as may be necessary to stop the bleeding.

This is judged by feeling the pulse at wrist or ankle: stoppage of the pulse means that the circulation in the limb has been stopped. A tourniquet can only be left on for a short time; fifteen minutes is enough, because the limb is being starved of its blood, and may die (become gangrenous) if starved too long. But fifteen minutes will in most cases allow time for transport to doctor or hospital; if not, then after the fifteen minutes the tourniquet must be carefully and slowly relaxed for a few seconds to allow for circulation; then, if bleeding is continuing, it must be tightened up again.

### **Restore Breathing.**

In suffocation the breathing has stopped, and must be restored. A person may be suffocated because there is no air to be had—as in drowning, and in rooms filled with smoke or gas; or because there is no way in for the air, as in hanging, and in choking by food stuck in the back of the throat.

(1) **Make sure there is air;** get the drowning person out of the water: drag the suffocated person out of the smoke- or gas-filled room (to do this, take several deep breaths, tie a wet handkerchief or towel over your mouth and nose, and rush for it).

(2) **Make sure there is entry-way for the air.** A lump of food must be hooked out of the throat with the finger; tight bands round the neck must be cut; weeds, grass, water, corks, must be cleared out of the mouth in cases of drowning; a turned-back tongue must be drawn forward.

(3) **Establish the movements of breathing.** This is known as artificial respiration. Do the artificial respiration on the spot, without delay.

(1) Place the patient prone—that is, in the face-downwards position. Turn the head to one side;



FIG. 19.—Artificial Respiration.



clear the mouth; remove false teeth; draw forward the tongue; undo collar or neck-band. Place the arms above the head.

(2) Kneel at one side of the patient, at the level of his hips, and facing towards his head.

(3) Place your hands over the lower ribs, your thumbs almost meeting at the backbone.

(4) Press by leaning forward, so that your weight compresses the ribs and forces the air out of the lungs.

(5) Relax your weight; the lungs will fill by the elastic rise of the ribs.

(6) Do these movements rhythmically, methodically, persistently, and without hurry.

(7) Let your rate be fifteen times to the minute; this means that a bystander with a watch can count the seconds—one, two, three, four, one, two, three, four—and so your rhythm will be kept even.

(8) Persist for at least two hours. After ten minutes you will be tired: get someone to relieve you by kneeling on the other side of the patient, placing his hands over yours, and continuing the movements while you withdraw for a rest.

(9) Meanwhile, have bystanders fetch warm blankets and hot-water bottles to place around the patient: do not let the rhythm be disturbed.

The method just described is known as Schäfer's, and has been for years a tried and trusted system of restoring breathing. More modern is the Holger-Nielsen method, in which the movements are carried out by a worker kneeling beyond the head of the unconscious person and looking towards his feet, the patient meanwhile lying prone with hands beneath his forehead and his face turned to one side. Whichever system is adopted, the important things are steady rhythm and perseverance.

### Prevent Shock.

Every severe injury produces shock, which is a lowering of vitality which may amount to a dangerous state

of collapse. Shock must be prevented if possible, for this is a case in which prevention is easier and better than cure. Burns and scalds, crushing accidents such as run-overs, severe hæmorrhage, and fractures, all produce rapid and maybe profound shock.

### To Prevent Shock.

- (1) Stop hæmorrhage or loss of blood.
- (2) Take measures to relieve pain. Wounds are more



FIG. 20.—Resting a Scalded Hand in a Bowl of Lotion while Dressing is Prepared.

painful if exposed to the air, so get the wound, or burn, or scald, covered with a suitable dressing as soon as possible.

(3) Give air; keep bystanders back; loosen tight neck-band.

(4) Keep the injured person at rest. Rest relieves pain and conserves strength.

(5) Supply warmth by means of blankets, rugs, coats, hot-water bottles, and in suitable cases hot drinks. Do



not give a drink to a person who has an abdominal injury; stomach or bowel may be torn, and a drink will make things worse. And of course do not try to give a drink to an unconscious person: he may choke; nor to one whose injuries may mean an immediate anæsthetic, in case he should complicate matters by being sick.

(6) While taking these measures to prevent and lessen shock, have someone to send for ambulance or other means of transport, so that the injured person may be got home or to hospital as soon as possible.

(7) Speak in an encouraging way to the injured person.

### First Aid in Burns and Scalds (Fig. 20).

Immerse the burnt or scalded part in warm water containing two teaspoonfuls of bicarbonate of soda (cooking soda) to the pint; or cover the burn or scald with cloths or lint soaked in the same.

If a dressing of this sort is not available, then apply a sterile (or clean) dry dressing to the injured surface: to cover from the air is a most important thing because such covering lessens pain and so lessens shock.

Apply the measures for preventing shock. This is First Aid; the actual dressing should be left to the doctor or hospital surgeon, who will decide on the best for the individual case.

### First Aid in Wounds (Fig. 21).

(1) Stop hæmorrhage, if present.

(2) Clean actual dirt away from the wound, using a mild disinfectant such as Dettol (a teaspoonful to a pint of warm water).

(3) For arm and hand injuries use a sling.

(4) Cover the wound with a first aid dressing; gauze or boracic lint will serve.

### First Aid in Fainting (Fig. 22).

Sometimes a person complains of "feeling faint"; if so, make him sit down with the head bent forward

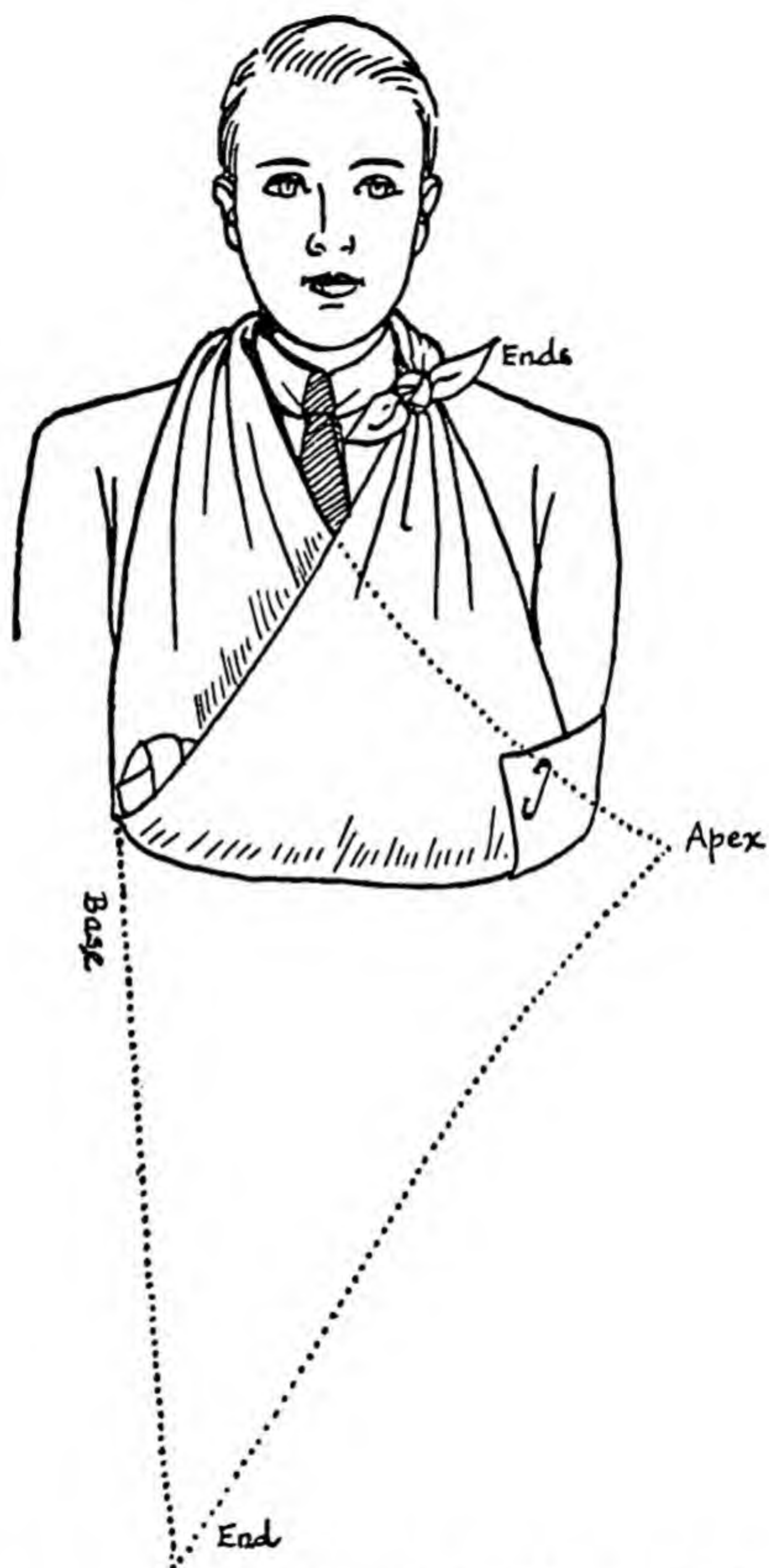


FIG. 21.—Applying Triangular Bandage as Sling.



between the knees, and give a drink of water. But sometimes people faint without warning. A woman will



FIG. 22.—Restoration of Fainting Person.

sag to the ground while waiting in a queue, and lies unconscious. Give her air; get the bystanders to back away; loosen any tight clothing at the neck; hold smell-

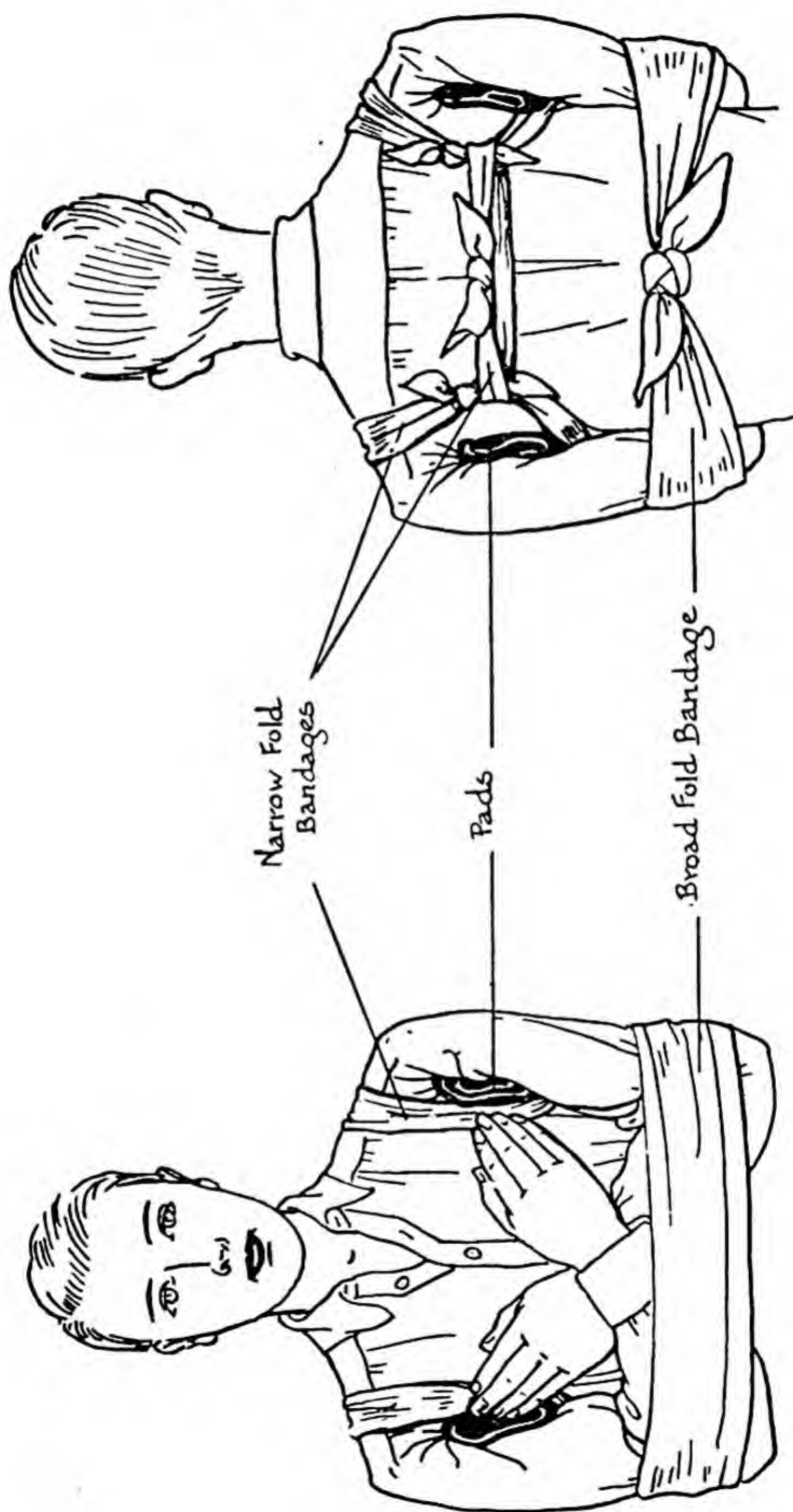


FIG. 23.—First Aid : Bandaging one or both Fractured Clavicles.



ing salts to the nose. Do not attempt to remove her until she regains consciousness; then she may be carried or helped to a more convenient place, and may have a drink of water, or half-a-teaspoonful of sal volatile in a wineglass of cold water, or a cup of hot tea or coffee.

### First Aid in Fits.

See that the sufferer is able to breathe, and that he does not hurt himself.

For the first, get the crowd to stand back and give air; loosen tight clothing round the neck, and see that the tongue is forward. Remove false teeth, which may be a source of danger from choking. For the second, remove any articles of furniture against which he may knock himself; or, out of doors, draw him gently away from railings or posts against which he might kick; and prevent him from biting his tongue by pushing a pencil or piece of stick wrapped in handkerchief between his back teeth on one side. The fit will run its course; make sure that the patient is covered warmly, and have him taken home or to hospital as soon as the violent convulsions cease.

### First Aid in Fractures (Figs. 23-25).

A fractured limb may be recognised by its altered shape, the pain, and the inability to use it. If in doubt, regard as a fracture and act accordingly.

(1) Deal with a fracture on the spot. It may become a great deal worse if you drag or help a person with a fracture to the side of the road or into a house, without first supporting the fractured bone—for instance, a jagged end of bone may poke through the skin in the effort of moving, or some internal damage may be done.

(2) Fix the limb so that the fractured bone cannot move. For this we use splints, usually pieces of padded board. If no splints are handy, use any piece of wood of proper size, or a folded newspaper, a walking-stick, a

broom handle—anything, indeed, of the right length and stiffness. Gently, very gently, draw the limb into line, and place your “splints” around the fracture, bandaging them to the limb. Make sure that no movement is possible at the joints on either side of the frac-



FIG. 24.—Fractured Radius at Wrist. Splints improvised from folded newspapers and supported by sling (dotted line).

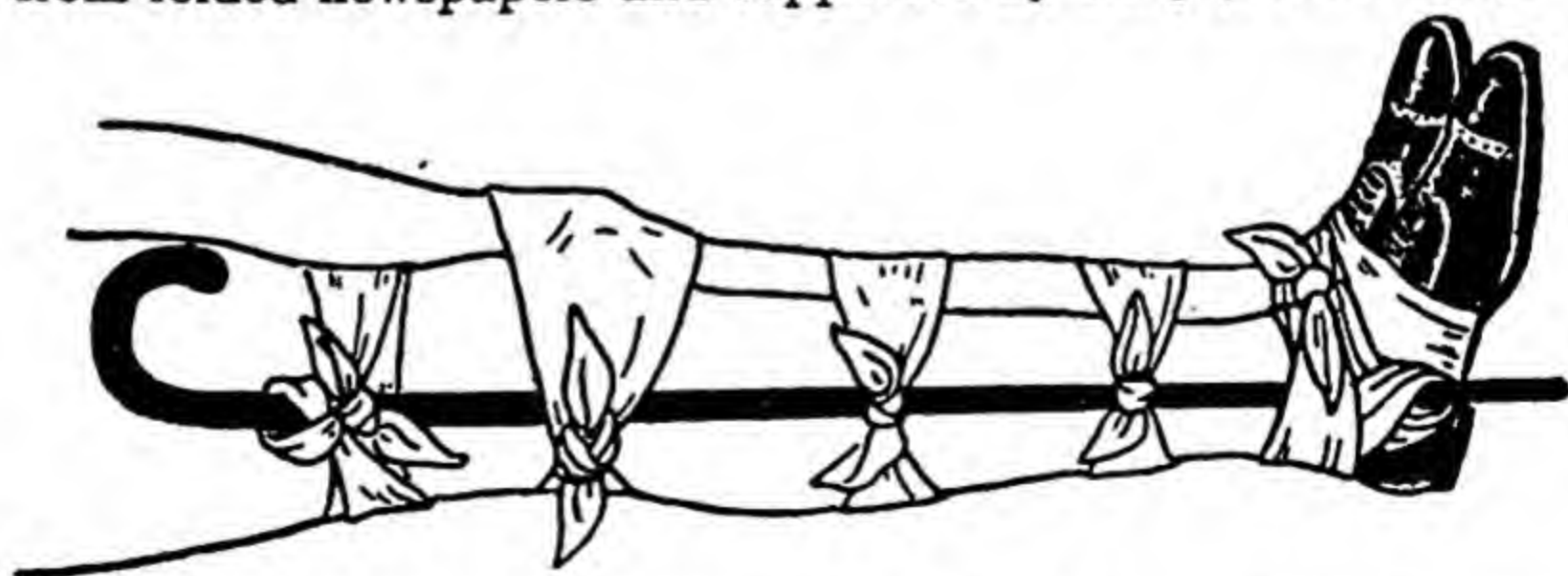


FIG. 25.—Walking Stick as “Splint” for Fracture in Lower Leg. Legs tied together for further support.



ture: this means that for a fractured forearm the wrist and elbow must be fixed; for a broken thigh, both knee and hip, and so on. If no splints or substitutes for them are available, bandage an injured arm to the body and an injured leg to the sound one.

Take measures to prevent shock; and, as soon as the fracture is properly supported, have the injured person carefully conveyed to hospital.

### First Aid in Sudden Childbirth.

Under the stress of sudden excitement, or following an accident, it is possible that an expectant mother who has already had children, and is near her time, may be taken with pains and be rapidly delivered of her infant in a street or other public place. A mother knows what is happening: she will tell you: so do not let her walk, but have her carried into a house and get someone to go for (or telephone for) a doctor and midwife. If the birth is imminent, as shown by bulging at the orifice of the birth canal, get her to bed, and get some women to assist.

In such a case the baby is born without difficulty; and you will find that it is attached to its mother by a short, thick cord. This cord must be tied in two places, and divided with clean scissors between the ties. This having been done, the baby may be removed, its eyes and mouth wiped, and the child wrapped in a shawl and put in a safe and warm place until it can be bathed.

Meanwhile—usually in the course of a few minutes—the “after-birth” is expelled, and the process of birth is over. If the after-birth does not come naturally, wait for the midwife or doctor: if in such case there is very free loss of blood, it is allowable to place a hand on the abdomen and press gently on the uterus (womb) which will be felt as a rounded mass under the hand.

When the after-birth has come away, the orifice of the birth canal may be cleansed with a lotion of Dettol in warm water, and a clean pad applied.

# CHAPTER XIII

## THE HOUSEHOLD MEDICINE CUPBOARD

(A List of Useful Things)

### I. Dressings.

Absorbent cotton-wool.

Adhesive dressing-strips.

Adhesive plaster (adhesive ribbon tape on spool).

Bandages, open wove; width one inch, two, and three inches.

Boric lint (pink lint). This makes a very useful dressing when moistened with hot water.

White lint. This is used for the spreading of ointments.

### 2. For External Use.

Antiseptic dusting-powder.

Boracic crystals.

Boracic powder.

Camphorated oil.

Cold cream.

Dettol, or other non-poisonous disinfectant.

Emulsion of Acriflavine in Liquid Paraffin, a useful all-round dressing.

Extract of witch-hazel. (This, when diluted, is a useful cooling application.)

Kaolin poultice (in tin).

Liniment. (The analgesic balsam sold in tubes is very useful.)

Linseed meal.

Olive oil.

Peroxide of hydrogen (10-volume strength).

"Vaseline" Petroleum Jelly.

Weak tincture of iodine.



### 3. For Internal Use.

Aperient pills or tablets. (The phenaloin pill for grown-ups; lixen lozenges for children.)

Bicarbonate of soda.

Castor oil.

Children's cough syrup.

Chlorodyne.

Iodised throat lozenges.

Milk of magnesia.

Sal volatile. (Aromatic spirit of ammonia.)

Senna pods or senna tablets.

Tablets of aspirin or soluble aspirin.

Tablets of phenacetin and caffeine.

A cough mixture or cough lozenges for grown-ups.

### 4. Appliances.

Clinical thermometer.

Enema syringe.

Eye dropper or pipette.

Safety pins.

Scissors.

### 5. For the Tropics.

Atebrin tablets.

Quinine bi-hydrochloride tablets.

Potassium permanganate crystals.

Snake-bite lancet.

## PART TWO

### SOME PAGES ON ILLNESS

Many of the Common Ailments and Conditions arranged in alphabetical order, with some information about each, and some Rules for Home Treatment.

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IN this section a great number of different subjects are mentioned, many of them outside the range of home treatment without skilled medical advice. The reason for including such things is that this book may be of special use in the hands of those who live far from doctors and hospitals, and whose homes are in remote places. The writer has thought that some information and knowledge may be useful to such. But a warning must be given to the reader, not to be too ready to assume responsibility in the treatment of the severer forms of illness and injury. There are many conditions in which the best advice would still be: send for the doctor.

There is a second warning that may well be given to all. The reading of books on medical subjects has a fascination in it for many people; and it would be easy for a nervous or imaginative person to take alarm, and to see things worse than they are.

With this well-meant advice the writer commends to his readers the information in the pages which follow; and he trusts that a good and useful purpose will be served.

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#### ACIDOSIS

Children especially sometimes have attacks of vomiting which are associated with an over-acidity of the blood.



The usual signs are pallor, vomiting, yawning, and headache, together with a smell of apples (acetone) in the breath.

Some are prone to repeated (periodical) attacks; in others the conditions takes the form of train- or car-sickness.

Treatment is first general: avoid such foods as are found to upset, and this refers especially to fats, and keep the bowels open without the use of drastic purgatives; and during the attack counteract the acidity by giving an alkali, such as half a teaspoonful of bicarbonate of soda in a little water.

In children prone to car- or train-sickness the attack may be anticipated, and perhaps prevented, by the giving of glucose—a heaped teaspoonful in water or with food before the journey.

## ACNE

Acne is an eruption of small, “mattery” heads on the skin, frequently seen on the face and on the back, and occurring chiefly in young adults. It is especially frequent in youths of sixteen or seventeen on whose faces the hair is beginning to grow. It is also associated with the monthly periods in girls.

Treatment is in the first instance to attend to the general health. Constipation is often present, and this must be met by the establishment of a daily evacuation by the use of senna or cascara or salines. In girls anæmia is an associated condition, and must be treated with iron.

Treatment directed to the skin itself consists in washing with soap and water and drying with a rough towel, by which means many of the spots will be emptied of their contents.

Then a sulphur ointment may be rubbed in, or one of the proprietary ointments prepared for this complaint.

A course of vaccine may be tried in cases which do not yield to ordinary treatment.

## ADENOIDS

One of the commonest ailments of childhood, and one of the most frequent causes of ill-health. Adenoids are spongy masses growing from the roof of the back of the nose; and the mouth-breathing which they cause, by obstructing the free airway through nose to throat, may result in recurring colds and bronchial catarrhs. The signs of adenoids are a tendency to catch colds, and difficulty in breathing through the nose. The child sleeps with its mouth open, and usually snores. Backwardness at school, deafness, and a generally pale and run-down condition are frequent consequences of the presence of adenoids.

Treatment is removal by a competent surgeon. The operation is not dangerous, and the improvement in health and appearance is often marvellous. After the operation the child should be encouraged to breathe through the nose: to stand up straight and take a dozen deep breaths with the mouth tightly shut, and to do this night and morning, is a useful exercise. Skipping, with the mouth tightly closed, is a good way of promoting proper breathing.

Adenoids are usually associated with enlargement or unhealthiness of the tonsils, and if this is the case the tonsils should be removed at the time of operation.

## ALOPECIA

Alopecia is a word used to mean baldness or falling of the hair.

A general falling of the hair often accompanies conditions of ill-health, as after acute illnesses; in such cases by general tonic treatment health returns and the hair grows again.

But alopecia may be patchy, and the various bald places on the scalp are very unsightly: this condition is called alopecia areata. It must not be mistaken for



ringworm, which also causes bald patches; but ringworm occurs almost entirely in growing boys and girls, whereas alopecia is a disease of adult life.

Treatment must be on general tonic lines, because of the run-down state of health which is often present.

For local application to the scalp, bay rum with tincture of cantharides (half a dram to the ounce of bay rum) is useful, as is indeed any stimulating liniment; the colloidal sulphur lotion may also benefit.

But whatever be used, it must not be forgotten that the massage with the finger-tips is an important part of the treatment, and ten minutes of this vigorous massage should be given to the scalp night and morning.

## ALVEOLAR ABSCESS

(Commonly known as *Gumboil*)

This is an abscess or collection of matter (pus) forming between the root of a tooth and its socket, and burrowing its way to the surface as a swelling in the gum.

The quickest and most certain treatment is removal of the tooth: the only trouble is that it is unwise to inject a local anæsthetic into the gum when an abscess is forming, and extraction must be done either under gas or without any anæsthetic.

If for any reason the tooth is not extracted, then hot rinsings of the mouth with a mild non-poisonous anti-septic solution may be used, together with heat applied to the face. At the same time an aperient should be given, and one or two five-grain tablets of aspirin taken to relieve pain.

A tonic will be needed after the abscess has broken.

## ANÆMIA

With better conditions of food and work and living, this condition is not so common as it used to be.

Anæmia is a deficiency in the quantity or quality of the blood. Thus it may follow severe bleeding.

The deficiency, however, is more frequently in the quality of the blood: a lessened number of red corpuscles, and therefore a less quantity of the colouring matter (iron).

The usual signs of anæmia are paleness of skin generally, seen particularly in the face, and paleness of the gums and lips and inner surface of the lower eyelid.

With this paleness there may be lassitude and tiredness and loss of energy and appetite, with a degree of breathlessness on exertion which varies with the degree of the anæmia.

Treatment consists in taking such measures as may be calculated to restore the blood to its normal condition. Fresh air, good food, proper rest, and proper exercise are important; and the diet should contain plenty of such foods as contain iron—for instance, meat, eggs, liver, whole-meal bread, green vegetables and especially spinach, cocoa, milk, and fruits generally.

For medicine, iron must be given in some form, and conveniently as tablets or capsules, of which there are many. Bland's pill is a well-established and old favourite, but the pills are apt to get hard, and should be cut in half or crushed before taking. For children the very palatable syrup known as "Parrish's Chemical Food" is useful.

**Pernicious Anæmia** is a form of progressive anæmia seen in middle and later life. Instead of being the fatal disease which it formerly was, pernicious anæmia is now curable by the administration of liver or of liver extract or an extract of hog's stomach, all of which contain a blood-forming principle.



## ANGINA PECTORIS

This is the name given to a severe form of heart seizure seen in later life, seldom before fifty, and especially in men. The attack comes on after exertion, even after very slight efforts, and the signs are severe pain behind the breastbone, a feeling of deadly illness, and a desire to remain still. With these there may be the usual signs of collapse—coldness, blueness, tingling of lips, sweating.

**Treatment.** The person who knows that he suffers from angina should avoid exertion, and also live an abstemious life as regards food and drink and tobacco. He should carry with him some capsules of amyl nitrite, one of which he may crush and inhale at the onset of an attack. Sal volatile (aromatic spirit of ammonia) may be given during the attack: a teaspoonful in a little cold water. This is not only a stimulant, but it also helps to dispel the flatulence which the patient feels.

A long rest may be necessary; and a worrying occupation is bad.

## APPENDICITIS

Appendicitis is an inflammation of the small, worm-like, blind-ended tube which runs off from the junction of the small and large intestines. The signs are pain, usually sudden, in the abdomen, with vomiting or a feeling of sickness. Tenderness is felt in the right lower quarter of the abdomen, and there is usually stiffness of the muscles of the abdominal wall.

Attacks are liable to recur again and again.

The appendix is a natural part of our anatomy, and most people go through life without being aware of its presence. It is, however, a part of the bowel specially liable to become inflamed; and to avoid such attacks it is necessary to avoid becoming constipated. The habit of regular daily evacuation of the bowel is a

safeguard. Heavy meals when tired, and large, cold drinks when heated, are also to be avoided.

**Treatment.** If an attack is suspected, the patient should go to bed without delay, and take nothing whatever to eat or drink with the exception of small quantities of water. At the same time hot applications—such as hot-water bottle, bran bag, or poultice—may be applied to the abdomen; and these measures should be maintained as long as pain and tenderness remain.

A surgeon should see the patient at the very onset; for there is no doubt that early operation is the safest cure; and also anyone who has had more than one attack should have the appendix removed.

If there is constipation, the bowel may be emptied by means of an enema; but purgatives should be avoided during an attack.

## ASTHMA

A distressing complaint in which the sufferer has periodical attacks of difficulty of breathing and cough. The attack comes on suddenly; the patient sits up in bed, wheezing and distressed. After a variable number of hours the breathing becomes easier, and there is cough with expectoration. We speak of certain people as being “asthmatic” or subject to attacks of asthma: the complaint sometimes runs in families, or other members of the family may have hay-fever or be subject to nettle-rash. An attack of asthma may develop into bronchitis or even pneumonia, especially in children.

**Prevention.** It is often possible to discover something which brings on asthma; such as certain foods, especially seasoned dishes; feather pillows; foggy weather. Asthmatics also find themselves affected by locality: they get their attacks in one place and not in another.

Therefore let the subject of asthma live—if he can choose—in the place that suits him. Let him have no feather pillow or cushions, and no eiderdown; have such



things stuffed with kapok instead. Avoid seasoned and indigestible foods: never take a heavy meal late at night. If certain foods are suspected of bringing on the attacks, cut them out of the dietary completely. Live a plain and even life.

Some people are affected by the presence of cats, or of horses; and should avoid them. Children must be examined for diseased tonsils and for adenoids; these should be removed.

**Treatment.** At the first warning, a tablet containing half a grain of ephedrine hydrochloride should be given; also an aperient or a bowel wash-out. The inhalation of the fumes from burning one of the many asthma powders, or from smoking asthma cigarettes, is a popular form of relief; but this has the disadvantage that it may lead to a persistent bronchitis.

A mixture containing five grains of iodide of potassium and three grains of ammonium carbonate to the dose is useful.

Various things may be given by hypodermic injection to cut short an attack of asthma: the administration of these should be left to the doctor.

## BALDNESS

See Alopecia.

## BED WETTING

This is also spoken of as *Enuresis*, and is a frequent trouble in childhood.

The wetting of the bed most commonly happens in the early morning, when the child is about to, or beginning to, wake up. It would seem as though the presence of a full bladder is felt before consciousness is complete, and the semi-conscious urge to empty the bladder meets with an involuntary response. There may be a cause; such as teething, worms, adenoids, or some digestive

trouble, or a tight foreskin; or the urine may be over-acid and irritating, as shown by its pink colour and a sediment.

Treatment of bed wetting may be summed up as follows:—

(1) Prevention. The infant should be taught as early as possible to empty the bladder when “held out”. With perseverance this may be accomplished at two months old or sooner, and wet nappies will be the exception.

If the baby empties its bladder at ten p.m., it will soon be able to go through the night to six a.m. without wetting.

(2) Removal of cause, if known. Any of the causes named above should receive proper treatment.

(3) Make sure that the bladder is emptied last thing at night. If parents go to bed at, say, ten or ten-thirty, the child may be woken sufficiently to allow it to empty the bladder, and will then go to sleep again.

(4) Never give a full or indigestible meal to a child in the evening.

(5) If the child is old enough to appreciate it, give him a word of praise when his bed is dry in the morning, or even give him some small reward.

(6) As the nerve-government of the bladder may be acting wrongly, drugs are given in suitable cases. Such treatment should only be on the advice of a doctor who has seen the child.

(7) In bed wetting there is often some sub-conscious resentment in the child's mind; and the removal of some—maybe imaginary—grievance, or the establishment of better understanding between child and parent, may be the means of cure. (See also under HABITS, p. 156.)

## BITES, STINGS, AND THORN-PRICKS

Of the various flies that sting in our woods and gardens, the commonest are gnats, gad-flies, bees, and wasps.



**Gnats** are a particular nuisance to some people, especially to those with delicate skins. Gnats can be repelled by smearing exposed parts with oil of citronella; but this has a penetrating scent which some people dislike. A more pleasant repellent is oil of pyrethrum. Gnat-bites are not usually lasting; they itch and swell, but are mostly forgotten in a few hours. Witch-hazel jelly makes a useful application.

**Gad-flies** are more troublesome: they may produce a septic bite; and their bite always results in prolonged itching and swelling and some malaise. If bitten, a cooling lotion, such as witch-hazel or lead and opium, should be used, and a dose of opening medicine taken.

**Bees and Wasps** cause swellings which are painful at first and afterwards itching. The difference between the two is that bees inject an acid poison and wasps an alkali: also, the bee leaves her sting in the wound. For a bee-sting, therefore, withdraw the sting with tweezers or lift it out with the point of a sterilised needle, and then apply sal volatile (the aromatic spirit of ammonia) or bicarbonate of soda (cooking soda) in water. For a wasp-sting apply vinegar or vinegar and water. Following this first-aid treatment, apply cooling lotions as long as swelling and itching persist.

**Thorns.** Pricks with thorns in the garden should never be neglected. Rose-thorns in particular can cause a deep puncture, and not infrequently introduce septic material. Weak tincture of iodine should be applied immediately; and subsequently hot fomentations of boracic lint used.

Red streaks appearing on the arm are a sign that septic material has got into the lymph-stream; the streaks should be painted with the weak tincture of iodine, and the arm put in a sling.

A running sepsis of this kind may easily become serious, and medical advice should be taken if it occurs. These infections are treated nowadays with



sulphanilamide (a blood disinfectant) in tablet form or injected.

## BLOOD PRESSURE

It will be understood that each time the heart beats it propels the blood along the arteries with a certain force, and that therefore pressure is caused within the arteries. This pressure, the result of the heart's "beat" or pumping action, is known as the *Systolic Blood Pressure*—or, in common speech, the blood pressure.

Similarly it will be understood that in the intervals between the heart-beats the pressure will be relaxed; and the degree of pressure that still exists within the arteries at the moment of greatest relaxation is spoken of as the *Diastolic Blood Pressure*.

If we can imagine a column of mercury placed on the artery, and of just sufficient height for its weight to compress the artery and prevent the blood from passing—or, in other words, a column of mercury heavy enough to stop the pulse—we can again understand that we have a method here of registering the actual blood pressure. The height of the column of mercury varies with age; it varies in different individuals; it varies in certain ailments; but, roughly speaking, if we take the height of the mercury column in millimetres, our systolic blood pressure is represented by the figure 100 added to our age—and thus we speak of a blood pressure of a hundred and thirty, a hundred and thirty-five, and so on. This is only a rough guide to blood pressure, for individuals vary greatly. The instrument used for registering the blood pressure is called a Sphygmomanometer.

Perhaps we think too much of blood pressure, just because a variation occurs in individuals, and this variation is quite compatible with perfect health; nevertheless, our blood pressure is a valuable evidence of our condition, and there are states of health in which it is higher or lower than the normal.



Blood pressure is lower than normal in conditions of debility, especially after illnesses such as influenza.

The signs are weariness, loss of energy, headache, and perhaps dizziness.

Treatment is by tonics, and by increasing the amount of fluid taken.

Blood pressure is higher than normal in people past middle life who are of sedentary habit, worried, and constipated; also in those who are given to free indulgence in rich food or alcoholic drink.

Common signs are headache, with sense of fullness in the head, dizziness on stooping, noises in the ears, and palpitations. There may also be bleeding at the nose, which in such cases is a natural safety-valve.

Treatment is by diet, which means abstaining from butcher's meat and from all alcoholic drink, and also from sauces, pickles, and seasoned foods generally. Over-exertion, worry, and excitement must be avoided: the bowels must be kept open regularly, and for this purpose a saline aperient in the mornings is best; or a daily bowel action may be achieved by the regular taking of medicinal paraffin.

## BOIL

A boil is an inflammation around a hair follicle, resulting in the formation of an abscess. It begins as a tender, throbbing spot, hard to the touch, enlarging, and after a time showing a yellow spot at its centre, through which first matter and later a core or slough will be discharged.

A boil results from the infection of a hair follicle with the micro-organism known as staphylococcus, and the slough or core represents the corpuscles which have been killed in their battle with this microbe.

**Treatment.** It is not wise to foment or to poultice boils: such treatment may weaken the surrounding skin and make it liable to infection with the same microbe, with the result that more boils form. If a warm

dressing is desired, the kaolin poultice is the one of choice (see p. 68). A boil plaster may be used; this is usually a mercurial dressing with a hole in its centre through which the boil "points" or "comes to its head". Nor should a boil be squeezed when it discharges, as again weakening of the damaged tissues and consequent spreading of the process may ensue.

**Carbuncle**, though of the same nature as boil, differs from it in that several hair follicles are involved, and the carbuncle discharges through several openings, whereas the boil has only one.

In carbuncle particularly the urine should be tested for sugar, as both boils and carbuncles are liable to occur in diabetic persons.

**Treatment.** Various remedies have been used for boils, both to aid in their disappearance and to prevent their coming, but the maintenance of good health is the most important. Constipation and anæmia must be corrected, skin cleanliness insisted on; and fresh air is essential. Tonics such as iron may be given, with plenty of green vegetables and fruit in the dietary. Butcher's meat should be reduced, and alcoholic drinks avoided. The advice of a doctor should be sought regarding "inoculations". These may take the form of curative substances, notably preparations of manganese, injected into the substance of a muscle; or a preventive "vaccine" may be injected—a three months' course of weekly injections is usual. The "vaccine" may be either prepared from the patient's own particular microbe, when it is called "autogenous", or it may be a stock vaccine prepared from various boil-producing organisms (staphylococci).

When the boil or carbuncle is open and discharging, lint soaked with a saturated solution of Epsom Salts is an excellent dressing. Injections of penicillin are useful in treatment in many cases of boil and carbuncle: these are given under doctor's instruction.



## BREAST, INFLAMMATION OF

## In Childhood.

It is not uncommon to see swelling and tenderness of the breast in quite small girls, and even in babies.

In very young infants the condition may be due to ignorant handling, in a mistaken effort to "draw out the nipple"—an unnecessary and wrong proceeding.

In older children the inflammation may result from a blow; but it is often spontaneous, and no cause other than the suggestion of adolescence can be discovered.

**Treatment.** Fomentations of boracic lint wrung out of very hot water, and covered with cotton-wool and a wide bandage, may be applied two or three times daily; or a kaolin poultice may be put on and left for twenty-four hours. In most cases the inflammation subsides; in a few, an abscess will form.

If a doctor is available, the treatment of abscess will be a small incision in a direction radiating from the nipple: if it is not opened, the abscess will eventually burst, in which case a scar is more likely to be left than when an incision is made.

## In Adult Life.

In nursing-mothers an inflammation of one or both breasts may occur from imperfect emptying, and especially in mothers who are anæmic and run-down.

**Treatment.** Hot fomentations may be applied, and the milk removed with a breast-pump: if the breast-pump is too painful, the milk may be gently pressed out by stroking towards the nipple with a sponge or pad of lint wrung out of hot water.

It is not wise to feed an infant from an inflamed breast.

Penicillin by injection is now a routine treatment for inflammation of the breast. Given under doctor's supervision at an early stage it is likely to cause the inflammation to die down, and save the trouble of abscess formation.

But if an abscess should form, it is better to have it opened by a small incision in a line radiating from the nipple—and the cut must not be too close to the nipple, for fear of scarring. At the same time, tonics, such as iron and quinine, or the compound syrup of the hypophosphites, should be given, and attention paid to the action of the bowels.

## BRONCHITIS

Bronchitis is an inflamed state of the tubes in the lungs; and it may vary from a mild catarrh without any feeling of illness to an acute bronchitis with high temperature and much difficulty in breathing.

The first stage is a dry and irritable condition of the bronchial tubes, resulting in hard cough, which may be very painful. Later the inflamed lining of the tubes throws off mucus, and the cough then becomes looser and less irritating. The expectoration, which was at first scanty and frothy, now becomes more plentiful, colourless and slimy, changing later to a thick yellow mucus, which gradually decreases as the cough becomes less.

**Treatment.** Put the patient to bed in a warm room, and keep him in an even temperature of 65–68° F. Make sure that there is proper ventilation: a stuffy sickroom is bad.

Food must be light. One or other of the “sulpha” drugs, or a combination of them, must be given from the onset, but of course under the instruction of the doctor: such treatment often cuts the illness short, besides reducing temperature and the likelihood of complications.

Penicillin may also be of great service.

The chest and ribs may be rubbed with camphorated oil or a white liniment, and an expectorant mixture given.

Later a sedative cough linctus may be prescribed.



## BRONCHO-PNEUMONIA

This disease differs from bronchitis, because in broncho-pneumonia the smallest divisions of the bronchial tubes are inflamed, with the result that the patient is in greater distress and is more seriously ill.

Broncho-pneumonia is often seen in children, and also in adults after influenza, or as an extension of bronchitis.

The signs at the beginning are those of a "cold on the chest", but as the inflammation progresses the temperature rises and remains up— $101^{\circ}$  F. or higher—and there is hard cough with some pain and distress in breathing, and the expectoration is frothy and brownish or tinged with blood.

Broncho-pneumonia runs a course which varies from a few days to two or three weeks: cough gradually becomes looser, the expectoration thicker and yellow in colour, and the temperature gradually falls.

**Treatment.** Bed in a warm room (room temperature  $65-68^{\circ}$  F.). Absolute rest, but the patient may be propped up; and a bed-pan must be used to save him from getting out of bed or making any exertion. A large kaolin poultice to chest and sides, extending round to the back. This may be left on for twenty-four hours and then renewed.

Diet must be fluid. Barley water well sweetened and flavoured with lemon may be given *ad lib.*; also orange juice and water, beef tea, any of the various meat-extract drinks, such as Bovril, Oxo, etc., or Marmite. If milk is given, it should be peptonised, or diluted with barley water, or rendered more digestible by the addition of citrate of soda (three two-grain tablets to the cupful). Raw milk undiluted is not good, because of its tendency to produce a coated tongue; and patients complain that they feel that it "clogs the chest".

All drinks should be warm.

As the temperature falls, beaten-up egg and various of the milky foods may be given; leading gradually to

bread and butter, milk pudding and stewed fruit, and fish; and when convalescence is fully established, ordinary plain diet.

For medicine, a couple of tablets of aspirin compound with Dover powder may be given at the onset of a "chest-cold": then an expectorant mixture which should be prescribed by a doctor.

Alcohol is of value; it provides the body with an easily-used fuel, and may be given in the form of table-spoon doses of brandy or whisky with hot water and sugar two or three times daily.

But it is nursing that cures pneumonias; and the rest and comfort of the patient are of supreme importance.

A limb-by-limb blanket bath daily, and attention to the back and to all bony points with methylated spirit and dusting-powder, are matters of comfort and value. Fresh air is of great importance, too: windows should be open, but the patient shielded from direct draughts.

## BRUISES

A bruise is the result of a blow, and the blue colour and swelling are due to blood oozing beneath the skin from tiny torn blood vessels.

Treatment of a bruise is to apply lint soaked in a cooling lotion, or a handkerchief wrung out of cold water; either of these should be renewed frequently.

As a rule a bruise slowly disappears, and gives no trouble.

## BUNION

A bunion is a swelling of a cushion or "bursa" over the bony prominence at the side of the foot at the base of the great toe. This prominence is exaggerated by a flattening of the side-to-side arch of the foot, and the prominent bone, the head of the metatarsal bone of the great toe, is pressed upon by the shoe.

The bunion easily becomes inflamed, and is then very painful and crippling.



Treatment is to correct the foot trouble with an arch support and a prop between the great toe and its neighbour: for this latter a rolled piece of boracic lint will serve.

At the same time keep the foot clean and powdered, and wear a ring of cotton-wool or lint over the bunion to relieve the pressure from the shoe. An inflamed bunion should be fomented with boracic lint wrung out of hot water, or with a kaolin poultice.

Penicillin, though only available on a doctor's prescription and therefore not included in the household medicine cupboard, will probably be administered for an inflamed bunion, as a means of reducing the inflammation and preventing suppuration (abscess formation).

In persistent bunion, which interferes with comfortable walking and is subject to repeated inflammation, an operation must be considered for the removal of the bunion and the bony prominence beneath it.

## BURNS AND SCALDS

A burn is an injury caused by dry heat; a scald is caused by wet heat.

Burns and scalds vary in degree, from a mere reddening or blistering of the skin, to a deep destruction of the substance of limb or body.

The dangers are, first, shock, from pain and injury to skin and other tissues; then, the after-effects, of which the chief are over-acidity of the blood, and septic absorption from the injured parts during the process of healing.

**Treatment.** In the case of a person whose clothes are on fire, smother the flames by rolling in a rug or blanket, and then get the clothing off rapidly. Cut around any clothing stuck to a burnt part. In scalds, tear or cut off clothing which may be saturated with boiling water.

As a means of first aid and relief, and while a dressing

for the injured part is being prepared, immerse the burnt or scalded limb in warm water to which bicarbonate of soda (cooking soda) has been added in a strength of two teaspoonfuls to the pint, or apply lint or cloths soaked in this lotion. An all-important point in the first-aid treatment is to get the burn or scald covered from the air as soon as possible. This both protects the injured surface and also lessens pain and thus diminishes the severity of the shock.

Many and various dressings have been tried for burns and scalds; and while as a general rule you would not apply an oily dressing as "first aid", but by preference use the dry sterilised dressing or lint or gauze soaked in either the salt solution or the bicarbonate, a dressing of lint saturated with the emulsion of acriflavine in liquid paraffin makes a satisfactory form of treatment during the healing process: this should be disturbed as seldom as possible.

If blisters form they may be snipped with sterilised scissors, and a new dressing applied.

For general treatment, and to combat the shock which follows burns and scalds, get the patient to bed; supply warmth by means of hot-water bottles; give plenty of warm drinks, well sweetened with sugar or glucose; and neutralise the excess of acid in the blood by giving bicarbonate of soda (half a teaspoonful in water every four hours).

As healing proceeds, the limb must be moved each day, because the scars which form after burns and scalds are liable to contract. If there has been a considerable destruction of skin, it may be wise to have grafts of skin applied to the healing areas; this, of course, is a matter for an expert surgeon.

## CANCER

The subject of cancer is much in the public mind; and rightly so, not only because of the prevalence of this



disease, but also because of advances in treatment and the better hope of cure.

It is not the writer's intention to describe cancer in this book; the subject is one for the specialist, and is outside the scope of household medicine.

It is enough to say that if a person has a hard swelling or a lump where no lump should be, or a sore that will not heal; or a discharge, and especially a blood-stained discharge, where no discharge should be—for instance, from nipple or bowel or genital passages—then the advice of a doctor should be sought.

It is quite likely that the result of the consultation will be reassuring, and that some harmless explanation will be found for the symptom; if, on the other hand, a more serious name is given to the condition, the patient will have the satisfaction of having taken advice early, and the knowledge that by the modern methods of surgery and X-rays and radium a cure is very likely to be effected.

### CHICKEN-POX

The child with chicken-pox is not usually very ill; often a little loss of appetite and a disinclination to play are the only signs noticed until the spots appear.

The spots take the form of small, raised pimples, which develop a watery head. They are scattered, appearing first on the body, often below the collar-bones, and become widely spread in the course of two or three days. New spots may be seen while the older ones are developing their watery heads and then drying up, and no part of the body seems exempt except the palms of the hands and the soles of the feet; indeed, the spots can be very irritating among the hairs of the head and inside the mouth.

**Treatment.** Keep the child warm; give a cooling mixture and keep the bowels active: milk of magnesia does very well.

Dust the spots with a mixture of boracic acid, zinc oxide, and starch in the proportions of 1, 2, and 3—such powder is sold by chemists ready packed.



It is well to keep the child in bed until the spots are drying; when all are dry, warm baths may be taken; but the child must not be allowed to pick off the scabs which form as the spots dry.

The time between exposure to infection and the development of the rash is long—from seventeen to twenty-one days. The child should be isolated, and regarded as infectious to others until all the scabs have fallen off.

### CHILBLAINS

Chilblains are red or bluish-red itching swellings which appear in cold, and especially in cold and damp, weather: they are mostly seen on fingers and toes, but also on the outer ear and on the lower part of the calf of the leg. They are most common in children and in persons whose general health is below the average; and they are associated with a deficiency of calcium (lime salts) in the blood.

Treatment is to keep the skin clean and dry by washing in warm water and dusting with a borated talcum powder or a powder of zinc oxide, boric acid, and starch.

Relief of itching may be found in gentle rubbing with a stainless iodine ointment. Hard rubbing must be avoided; it may cause the skin to break.

For broken chilblains a zinc and salicylic ointment (Lassar's paste) is useful; it may be applied spread on lint.

For general treatment and prevention, improve the circulation by exercise; build up the health with cod-liver oil, either plain or in emulsion; give plenty of milk—our chief natural source of calcium supply—and administer calcium in tablet or syrup form: the tablets of calcium with vitamin D are convenient, and from one to four would be given daily according to age.

### CIRCUMCISION

By circumcision is meant the cutting away of the hood of skin which covers the end of the male organ (the



penis). This hood is known as the foreskin; and normally it can be drawn back so as to uncover the end of the penis (the glans, as it is called) as far as the groove which separates the glans from the body of the organ.

Mothers often ask, "Ought my baby to be circumcised?" The indications for circumcision are:—

- (1) A foreskin which cannot easily be drawn back even after stretching of its orifice by a doctor.
- (2) A foreskin which is unduly long.
- (3) A foreskin which has become inflamed and sore at its orifice.

If there is doubt, it is better to err in favour of circumcision. The operation is simple and perfectly safe in competent hands, and can do no harm. It is best done in the first weeks of life.

There is a tendency on the part of surgeons to delay the operation of circumcision, in the expectation that the foreskin will become retractable as the first years pass.

However, the advice given above may be taken as a guide.

## COLDS

### The Common Cold.

It used to be said that a cold lasts nine days: three days to come, three days to stay, and three days to go away. Colds are so common and so frequent, and so few people escape them, that it is unthinkable that we should go on wasting nine days of good health over our colds.

What can we do?

(1) **Prevention.** Avoid stuffy places when colds are prevalent.

Do not be afraid of fresh air: cultivate the open-window habit. Beware of those things that lower the body's power of resistance: chills, cold feet, damp clothing or stockings, over-tiredness, hunger—for colds are due to some form of microbic infection, and if our

blood-corpuscles are to fight the poison which causes our colds, then they must be kept in the best condition to do so.

A word may be said here about inoculation. It is possible, by the injection under our skin of a minute dose of the cold-poison, to educate our blood corpuscles so that they produce an antidote, and so are ready to fight the cold-poison when it comes in greater doses. For many people a course of three of such injections is a good preventive of colds; but it is only fair to say that some people do not find themselves helped by inoculations. Nevertheless, this method of prevention is worth a trial by anyone prone to colds. The protection lasts for about six months, which means that it will carry the susceptible person through the winter if inoculation is given in September; a further dose is sometimes given after Christmas; and the course of inoculations must be repeated every autumn.

(2) Treatment. The ideal way is, on the very first sign of a cold, to take a hot bath and a hot drink, and get into a warm bed.

The hot drink need not contain alcohol: well-sweetened lemon water, or lemon and barley water, will serve equally well, or even hot milk or broth, or one of the many food-drinks sold.

With the hot drink we may take a couple of compound aspirin tablets. There is a reasonable possibility that by such a course a cold may be cut short: in other words, we give our system the best possible conditions under which to wage its war against the cold-poison, and we hope for an early victory.

If these first means fail, or if the cold is already an established fact, then the treatment is carried on by warmth, light foods, and such remedies as the ammoniated tincture of quinine (half-a-teaspoonful in a little water every four hours for two or three doses), and by the taking of mild salines. If cough develops, then a stimulating expectorant is required.



It may be impossible to stay at home and nurse a cold, though for your own sake and that of other people this should be done if possible. The calls of business or of duty may be too strong: if so, then

*Do your best to cure your cold under the circumstances.*

Keep warm and dry; change shoes, and stockings if necessary; have light and regular meals, with a mid-morning drink of one of the meat extracts (such as Bovril, Oxo, Lemco, etc.), or, if preferred, one of the malted-milk drinks.

Get a little glass nose-douche, which costs a few pence, and flush each nostril with a warm mild disinfectant such as the compound glycerine of thymol diluted to ten times with warm water, and avoid blowing the nose after doing so. For the annoying "running" at the nose, one of the many preparations sold for dropping into the nose may be useful; these are a relief.

Avoid sudden changes from warm to cold air; and do not get over-tired. If the cold affects the throat or voice, then try inhaling the fumes from two or three crystals of menthol in half a pint of boiling water: needless to say, this must be done in a warm room, and you should remain in the warm for half an hour afterwards.

## COLIC

The word "colic" is used to describe severe griping pains in the abdomen.

*In an ordinary attack of colic* there is a history of chill, or of the taking of some unsuitable food—green apples and unripe plums are proverbial examples. If the pain is localised to any particular spot see a doctor: if not localised, and if there is no tender spot, a dose of opening medicine may be given. This will empty the bowel of undigested and irritating material; and when evacuation has taken place, a dose of twenty drops of chlorodyne (for an adult) and abstinence for a few hours from solid food will usually be enough to effect a cure.

During the paroxysms of pain hot applications may be made to the abdomen—such as a large hot fomentation of lint, wrung out of boiling water, or a partly-filled rubber hot-water bottle.

### **Appendicular Colic.**

Here the pain, which at first is general, becomes localised to the right side of the lower abdomen, and tenderness with stiffness of the muscle may be felt there.

**Treatment.** The sufferer from colic should remain in bed.

Hot applications may be used; but opening medicines should not be given; and if it is suspected that the colic is of appendicular type, a surgeon should see the case.

### **Renal Colic or Kidney Colic.**

In this form of colic there is sudden severe pain in the loin, running down one side of the body and into the groin. The pain is accompanied by a desire to pass water, and the urine may be stained with blood. In most cases renal colic results from the passage of a small stone from the kidney down the tube (the ureter) to the bladder; and the pain ceases when the journey of the stone into the bladder is complete, though aching and soreness in the affected loin are likely to remain for a day or two.

**Treatment.** Rest, hot applications to the loin, and a dose of some pain-relieving medicine such as aspirin or chlorodyne should be the treatment; but kidney colic is a condition which calls for the attention of a surgeon.

### **Gallstone Colic or Biliary Colic.**

This again is a condition requiring the advice of a surgeon. As in other forms of colic, the pain is severe:



it is felt most acutely about the margin of the ribs on the right side of the abdomen, and pierces through to the shoulder-blade on the same side. It results from the passage of a stone from the gall-bladder along the tube which leads the bile to the bowel; and as this may mean obstruction to the flow of the bile, jaundice is not uncommon.

## CONCUSSION

The word usually refers to concussion of the brain, and this is a head injury very frequently seen. It occurs in such accidents as children falling from swings, or in persons knocked down by moving vehicles.

The signs, in conjunction with the history of the accident, are partial or complete unconsciousness, with headache and vomiting. In the absence of the signs of more severe head injury, such as twitchings, bleeding from the ear, or prolonged unconsciousness, cases of concussion usually recover quickly if allowed to rest quietly in bed for a few days; but even so small an injury to the brain as a concussion must not be treated too lightly, and a child should be kept away from school and lesson books for three weeks. *Any case of head injury must be regarded as important, and should be seen by a doctor.*

## CONSTIPATION

Constipation is a lack of regular and complete evacuation of the waste material from the bowel.

Evacuation should take place daily, and by preference in the morning: in constipation, either this evacuation does not take place, or the waste material is unduly hard. The treatment is by

### 1. Correcting the Diet.

Make sure that enough fluid is taken. Drink water before breakfast. Eat plenty of fruit and green vegetables, and of foods containing "roughage"—such as

oatmeal porridge and brown bread, or a cereal such as "All-bran".

## 2. Establishing a Habit.

Make it a rule to visit the lavatory at the same time every day; and the best time is after breakfast in the morning.

## 3. Medicines.

The most popular of opening medicines at the present time is medicinal or "liquid" paraffin. This is a lubricant; it mixes with the food mass and passes through the bowel unchanged. It may be taken plain, or in emulsion form, and in emulsions agar-agar—a glutinous material produced from seaweed—is often added, with the object of increasing the bulk and softness of the mass, and so stimulating the movements of the bowel muscle.

Liquid paraffin is not a purgative medicine: it does not easily relieve a loaded bowel; and for this reason it is wiser, when the bowel is constipated, to give a dose of one of the usual aperient medicines, and to follow this with a daily dose of liquid paraffin (say one or two teaspoonfuls or more) until a proper habit is established.

Of medicines, the most useful are senna pods (from five to ten steeped for a day in a cup of cold water); cascara (conveniently in tablets of two grains of the extract); and syrup of figs or lixer for children. These are bedtime medicines.

Many people take a small dose (from half to one teaspoonful) of "salts" first thing in the morning: the "Glauber salts" are probably the most useful, or one of the effervescing salines.

To produce a rapid clearance of the bowel, castor oil is used. One or two tablespoonfuls for an adult, or one or two teaspoonfuls for a child, may be given, either floating on a little hot milk or on orange juice. Castor oil is only for occasional use.



#### 4. The Enema Syringe.

The enema is a useful means of relieving a loaded bowel, either when the mass is hard, or when purgative medicines have been given without result, or, of course, in cases when it is not advisable to give a purgative.

The simple enema consists of warm, soapy water; from a pint to a pint and a half is given into the rectum with a "Higginson's" syringe or with a funnel and rubber tube. In either case be sure that the syringe or tube is free from air, and also be sure that the soapy water is not too hot—it should be about the temperature of the body. Olive oil or its substitute (two or three tablespoonfuls) may be stirred into the soapy water; this increases the softening action on the mass in the bowel. The fluid must not be returned immediately; it should be retained in the bowel for a few minutes until the urge to evacuate is imperative.

#### 5. Suppositories.

As an easier method, many people use a small pencil of soap inserted into the bowel, or a glycerine suppository. But the enema is more certain, and is less likely to cause congestion of the veins about the opening of the bowel.

All these things are merely reliefs. The proper cure of constipation lies in the taking of suitable food, and in the establishment of a daily habit.

### CONSUMPTION

This is the name commonly given to the disease known as phthisis (pronounced thy-sis), or tuberculosis of the lungs.

This complaint is apt to run in families, and we speak of a predisposition to tuberculosis.

The onset is insidious. Commonly a chest cold, a mild attack of bronchial catarrh, is the starting-point.

The early signs are lassitude and loss of energy, cough,

night sweats, and a feeling of feverishness with rise of temperature in the evenings. A staining of blood in the mucus which is brought up in coughing may also be an early sign.

Accompanying these early symptoms there is loss of flesh, and shortness of breath on exertion.

Anyone suffering from such signs of ill-health as above enumerated should immediately consult a doctor.

**Treatment** is by fresh air, rest, and plentiful food.

The patient should remain in bed as long as there is any rise of temperature; and when he gets up, his exercise should at first be confined to slow, short walks. He should spend as much time as he can in the open air, and sleep in a room with windows wide open or removed from their frames, or in a garden hut with an open side.

Plenty of good, nourishing food should be taken, and especially the fatty foods such as milk and butter. Cod-liver oil is valuable, especially when mixed with extract of malt, which helps in the digestion of starchy foods.

Treatment is always prolonged, for this is not a disease in which recovery is quick; the health must be built up very thoroughly, or relapse may occur; and after recovery a fresh-air life, free from exertion or worry, is the best.

Two other lines of treatment may be mentioned because of their success, though they are outside the scope of domestic medicine and are matters for the expert physician.

(1) Hypodermic injections of a special vaccine with the object of increasing the resisting power of the system to the tubercle bacillus.

(2) Rest of the affected lung by means of what is called "artificial pneumothorax": in this treatment the diseased lung is put out of action for a time by filling the space between lung and chest wall with nitrogen gas. Surgical removal of the diseased portion is now frequently undertaken.



## The Prevention of Consumption.

(1) Again we come back to the rule so essential in the prevention of disease: live a healthy life. People, particularly those in whose parentage there is a taint of tuberculosis, should seek fresh air, and live well and plainly, avoiding any form of excess, and never neglecting a cough or a cold.

(2) Sufferers from tuberculosis of the lung should take precautions to prevent the communication of their disease to other people. The expectorated material is infectious; it should be burnt. Tissue-paper handkerchiefs may be used: if ordinary handkerchiefs are used they must be soaked in disinfectant as soon as soiled and before they are washed. Close contacts, such as sharing a bed or using the same drinking-vessel as others, or kissing, must be avoided.

## CONVULSIONS

In infancy a convulsion may be set up by such various causes as indigestion, constipation, teething, and a tight foreskin; intestinal worms are also a possible cause. A convulsion may occur at the beginning of some acute illness, such as measles or bronchitis; and though repeated convulsions may be a feature of some more serious trouble, in most cases the convulsions of infancy have a cause such as mentioned above.

“The baby is in a fit” aptly describes a convulsion: the sudden onset, the stiffened limbs, the fixed eyes, the twitchings; and though convulsions are not nowadays a very common trouble, it is as well for the mother to know what to do.

**Treatment.** The baby should immediately be undressed and put in a warm bath: at the same time cold-water cloths may be applied to the head. An enema of soap and water may be given, as in many cases a clearance of the bowel stops the convulsion.

When the baby is better, it should be allowed to sleep; but a dose of opening medicine should be given, and a

dose of a bromide mixture (two grains of the bromide of soda for an infant of one year) every four hours for a couple of days.

## CORNS

Corns are horny thickenings in the skin, occurring particularly at points of pressure, such as the soles of the feet and the upper surfaces of the toes.

**Treatment.** After soaking the feet well in hot water with a piece of washing soda the size of a walnut in each quart, the hard, horny layers may be shaved carefully away with a sharp knife. After this the corn should be painted with salicylic collodion.

Small adhesive ring-pads are sold; these can be put over corns, and have the effect of relieving the pressure.

## CROUP

Croup is an ailment of childhood characterised by a crowing sound with each intake of the breath: it may be due to spasm of the larynx (or voice-box) or to swelling as a result of a catarrhal inflammation.

### I. Spasmodic Croup.

This is seen in infants when the nervous system is upset—for example, in teething or indigestion—or in some form of irritation such as worms or the need for circumcision. It occurs without other signs of cold or sore throat.

**Treatment** is to clear out the bowel by castor oil or a soap-and-water enema; to give a hot bath, and then a dose of bromide of soda (two grains for a child a year old) or antipyrin (one grain for a child of the same age). In all cases of croup it is important to look at the child's throat (by opening the mouth, and holding the tongue down with the handle of a teaspoon), to make sure that there are no signs of diphtheria.



## 2. Catarrhal Croup or Catarrhal Laryngitis.

This occurs in children who have already shown signs of a cold—running nose, suffused eyes, cough—and it is then a sign of catarrh of the larynx.

Treatment is to give a hot bath, clear the bowels, put the child to bed, and apply a thin poultice or fomentation to the front of the neck (taking care that this is not too heavy), and have a steam kettle by the bedside.

For the irritating cough give a simple cough mixture, such as ipecacuanha wine (two to five drops according to age), with a similar dose of syrup of squills and glycerine; the dose to be repeated every two or three hours.

When the child is well, have him examined for unhealthy tonsils and adenoids.

## DEAFNESS

Deafness is a common accompaniment of advancing years, the drums becoming stiffened and the internal mechanism of the ear less mobile. In such cases a "deaf-aid" may be a comfort: this is a small electric microphone which magnifies the sounds reaching the ear.

In younger life deafness is commonly due to an accumulation of wax (spoken of as cerumen): it is possible that this may be seen on looking into the ear, and it can, if deeper, be seen through an ear speculum.

**Treatment.** Wax can be removed by syringing the ear, but must be softened first. Usual softening agents are olive oil, glycerine, or a few drops of ten-volume solution of peroxide of hydrogen. Water for syringing should not be above blood-heat; the syringe must have a short blunt nozzle, so that there is no danger of penetrating the drum; and the stream of water must be gentle, but just forcible enough to wash out the wax. Syringing is often a matter of difficulty, and should, if possible, be done by a doctor.

Deafness may also be due to a catarrh, and this is often seen in sore throats, where the small tube leading

from the throat to the back of the drum of the ear becomes blocked.

Often a quick but not forcible puff-out of the cheeks, with the nose held closed, will be enough to clear this little tube, but this manœuvre must not be tried if the throat is inflamed or if there is earache. In feverish ailments children often have earache from this blockage: a drop of warm olive oil put into the ear may be a relief, and will do no harm.

Deafness in children, with earache, and especially with a tenderness of the bone behind the ear, should certainly be a sign for seeking immediate medical advice; as disease in the cells of the bone behind the ear (mastoid disease) may easily follow a catarrh of the part of the ear behind the drum, and this is a not infrequent trouble in childhood. (See Mastoid, p. 174.)

## DIABETES

This is a disease which has been much in the public eye of late years, because of the revolution which has taken place in its treatment and the very much more hopeful outlook.

It is characterised by the presence of sugar in the urine, due to a defect in the action of the pancreas, a gland which lies in the abdomen behind the stomach.

The signs are thirst, an increased output of urine, and weakness accompanied by loss of weight. Diabetics are also prone to itching, and to boils and carbuncles.

Sugar in the urine is detected by boiling a few drops of the urine with half an inch of Fehling's or Benedict's solution in a test-tube: if sugar is present, the blue colour of the solution changes to brick-red.

If untreated, the disease progresses; but under proper and continued treatment it may be regarded as curable.

**Treatment is Twofold.**

(1) Dietetic. Since diabetes depends on too great a quantity of sugar in the blood, the rational treatment



is to withdraw or reduce the intake of sugar-producing foods. These are sugar itself, and all sweetened things; and all starchy foods, such as rice, tapioca, sago, bread, and cakes. Eggs, salads, and green vegetables may be taken; also bacon, cheese, fish, meat; and there are various "diabetic" breads and biscuits which may be used instead of the ordinary.

It is not wise to cut the diet down too suddenly; and the proper regulation of the foods taken should be under the prescription of a doctor.

(2) **Insulin.** The discovery of insulin, a substance prepared from the pancreas (sweetbread) of various animals, has quite altered the outlook in diabetes. Insulin is administered through a hypodermic syringe; and though the patient may administer it to himself, it is not possible for him to indicate for himself the correct dose, this being a matter for medical advice in each individual case.

## DIARRHŒA

This is a condition in which there is excessive looseness of the bowels.

(1) **Due to Food.** Diarrhœa may simply be Nature's way of getting rid of improper food, and ceases when that is completed. While some foods are mildly laxative—for example, prunes—others may act as smart purgatives, as unripe plums may do.

**Treatment.** If it is known that indigestible food has been taken, and the diarrhœa is the result, then a dose of castor oil—one or two teaspoonfuls for a child; one or two tablespoonfuls for an adult—will be likely to prove a quick and safe remedy.

(2) **Due to an Inflamed State of the Bowel.** Under this heading may be mentioned the summer diarrhœa of infancy. A catarrh of the bowel may be set up by microbes taken in milk.

**Treatment.** Though a dose of castor oil is again a

safe and useful treatment, it is not likely to do more than remove the offending milk or other food; and treatment must be continued by means of rest and warmth, avoidance of solid food, and the giving of as much fluid as can be taken. The fluids should be sweetened water or meat extract and water, given lukewarm or cold. If these are vomited, cold boiled water, with half a teaspoonful of common salt to the pint, may be given: at the same time maintain rest, and apply warmth to the abdomen.

### DIPHTHERIA

Diphtheria is a disease of childhood which has lost much of its terror since the introduction of the diphtheria antitoxin, and especially since the discovery of "immunisation" or rendering the child proof against diphtheria by inoculation. All children should be immunised: the inoculation causes no trouble and is very effective. The usual procedure is two doses at an interval of four weeks towards the end of the first year, and a third dose at five years of age.

The signs of diphtheria are a general feeling and appearance of illness, with sore throat. The pulse is quick, but the temperature is not usually high. In most cases the child does not have great pain with the throat; but a greyish-white or greyish-yellow patch, or patches, may be seen on the tonsils or on the back of the roof of the mouth. The breath is offensive.

**Treatment.** Diphtheria is a serious disease: antitoxin is given as early as possible, and absolute rest in bed is necessary for at least three weeks. Every case of diphtheria should be under medical care.

### DISLOCATIONS

In dislocation the bones entering into a joint are separated from their natural position.

In its signs a dislocation differs from a fracture, in that the limb is fixed instead of being unusually movable,



and there is obvious deformity at the joint. It is always wise to have a joint injury X-rayed.

The rule is *not* to attempt to reduce a dislocation if a doctor or hospital is available. These methods of reduction are given for the guidance of those far from skilled aid, as in the far parts of the world. They may therefore be useful to missionaries and travellers.

### Dislocation at the Shoulder.

The shoulder is stiff, and the arm is held a little away from the side; the head of the bone may be felt out of its place, or may cause a visible rounded swelling at the front of the armpit.

**Treatment.** The safest method of reduction or replacement is that known as Kocher's. Holding the arm by elbow and wrist, with elbow bent, and with the patient sitting in a chair or lying on a couch, press the elbow to the side and bring the hand away from the body in an outward direction. Next sweep the elbow gently towards the middle of the chest; and finally bring the hand on to the opposite shoulder.

If done firmly and deliberately these movements will result in reduction of the dislocation; after which the arm is put in a sling and bound to the side. A few days later gentle movements may be started.

**Dislocations of Joints of Fingers or Thumb** are reduced by fully bending, and then slowly straightening, while exerting pressure on the prominent bone on the back of the finger or thumb.

### Dislocation of the Jaw.

This sometimes happens from mere yawning, and the mouth remains open and the jaw fixed.

**Treatment.** Wrap your two thumbs well to avoid being bitten; stand in front of the patient (who sits in a chair) and place your two thumbs in the mouth

behind the molar teeth. Then press firmly downwards, at the same time lifting the chin.

### Dislocation of the Hip.

A serious dislocation, easily confused with a fracture in the joint.

**Treatment.** X-ray is imperative before touching this injury; but if you are far from medical aid, as in one of the distant parts of the earth, then you may remember the three movements of reduction. They are:—

(1) "Lift," which means gently raising the foot and at the same time bending the knee;

(2) "Bend out," which means press the knee outwards;

(3) "Roll out," which means bring the foot over to the other side, and then straighten the leg.

## DIZZINESS

See Vertigo (p. 213).

## DOG-BITE

A bite from a dog known to be healthy presents no dangers apart from the infliction of a wound, which is likely to be septic, and which may be bruised and lacerated from the animal's teeth. The injury may vary between a mere scratch or small puncture, and a deep tearing of the flesh.

**Treatment.** Thorough cleansing with an antiseptic is essential, and an injection of anti-tetanus serum is advisable. The more severe cases of dog-bite should be taken to hospital, in case it is necessary to remove any torn or bruised fragments which might delay healing. If cleansing with an antiseptic has been thorough there is no need for the use of caustic; but after the cleansing an antiseptic wound-dressing is applied, and the injured part kept at rest.



A bite from a mad dog—a dog suffering from rabies—is a more serious matter, as some of the virus of rabies is certain to have been introduced into the wound.

**Treatment.** Free cauterisation is essential; and for this purpose pure carbolic acid is just as effective as, and less painful than, the nitrate of silver. The weak tincture of iodine may be freely applied to the wound, which must be thoroughly swabbed out.

Then the patient must have anti-rabic treatment. As is well known, Louis Pasteur was the first to devise this treatment, and to-day's treatment is based on modifications of Pasteur's method.

## DROWNING

To revive the apparently drowned, the following rules should be obeyed:—

(1) As soon as the person has been lifted out of the water, lay him on the ground on his face, with arms above the head and the face turned to one side.

(2) If clothed, unfasten or cut away collar or any tight clothing, such as waistcoat or braces.

(3) Quickly wipe out the mouth, in case water or weed is present, and draw forward the tongue so as to give a free airway. Remove false teeth.

(4) Then, and without delay, carry out the movements of ARTIFICIAL RESPIRATION. (See pp. 82, 83).

Within the last few years the Holger Nielsen method has become the method of choice; mainly because it is considered more effective, but also because it does away with the possibility of fracturing ribs by too much pressure—an accident that has been known to occur in elderly people in whom the bones have become brittle.

In the Holger-Nielsen method the operator kneels beyond the patient's head, and facing him. The first movement is to apply pressure with the hands to the

back, thus causing expiration or breathing-out. Then the operator's hands are moved to grasp the patient's arms just above the elbows; and, by bending forward, the arms and shoulders are raised and the weight taken off the chest: this produces inspiration or breathing-in. For a full description of the Holger-Nielsen method the reader is referred to manuals on First Aid.

The secret of success is unhurried, uninterrupted perseverance.

While these movements are being carried out, bystanders may bring warm blankets and cover the patient, and pack him round with hot-water bottles—not, of course, interfering with or impeding the work of the person who is carrying out the rhythmic respiratory movements.

Do not be tempted to lose valuable time by having the patient carried to any more convenient place—such as house or hospital; resuscitation must be instituted immediately and without delay, and on the spot.

Success is evidenced by the patient drawing a breath for himself—this may be felt beneath the hands which rest upon the ribs, and may also be heard.

One respiration should not be the sign for relaxing efforts; it is necessary to persevere with the movements of artificial respiration until rhythmic breathing is well established. Then, and only then, carry the patient home, remove his wet clothes, and get him into a warm bed, with hot-water bottles between the blankets to maintain the warmth; and when he is sufficiently conscious, give a hot drink.

Keep the patient in bed for a day or two, until the danger of bronchitis and pneumonia has passed. Similar treatment by artificial respiration is useful in cases of suffocation and of coal-gas poisoning. Get the patient to the fresh air and proceed with the movements above described. Stimulants will be necessary. See also p. 83.



## DRUG ADDICTION

Under this heading we may, for convenience, include over-indulgence in tobacco and alcohol.

**Drugs.**

Drugs which may become habitual in certain people are morphia, cocaine, and various substances used to procure sleep.

Happily, drug addiction is less common than formerly, because legislation has made it difficult to obtain such drugs.

If a person is known to be a habitual user of drugs of a dangerous character, the habit must be broken.

This is difficult.

**Treatment.** Drug-takers are secretive about their habit, and resent interference: secretly they are ashamed. Nevertheless, some responsible person should give a warning of the very serious consequences of the habit, and the co-operation of the patient should be enlisted. A holiday in the country, or a sea cruise, away from the sources of supply, is sometimes effective in breaking the habit: in any case, supplies of the drug should be cut off.

Sudden withdrawal of the drug may result in a state of health which gives rise to alarm; depression, sleeplessness, loss of appetite, and loss of interest. This result must be countered by companionship, encouragement, frequent light feedings, and if necessary rest in bed. In course of time the craving goes.

**Tobacco.**

Over-indulgence in tobacco, whether by smoking, chewing, or snuff-taking, causes palpitation, trembling of fingers, loss of appetite, and defective eyesight.

**Treatment.** The amount of tobacco must be cut down: two pipes a day may be allowed, or three or four cigarettes; or, if the patient will co-operate, the smoking may be given up altogether.

For a time there will be a craving; but most smokers find that the habit is only social, or restful to the mind, and can be given up without detriment to the health.

People who say that they must have a substitute may have glucose sweets or barley sugar to suck: this keeps the mouth moist, and in reasonable quantity glucose is a stimulating food.

### Smoking and Lung Cancer.

This is a subject much in the public mind; and though opinions still differ, the weight of evidence points to a connection between the two.

### Alcohol.

This presents a more difficult and serious problem than does tobacco, for while smoking may be harmful, its effects are in most cases transient and comparatively slight.

Over-indulgence in alcohol, on the other hand, may cause damage which is irreparable, to liver or nerves or blood-vessels.

What is a safe daily quantity of alcohol? A very wise old teacher said to the writer that in his opinion an ounce of alcohol daily will leave its mark upon the system.

Speaking broadly, an ounce of alcohol is represented by four tablespoonfuls of brandy or whisky, three or four glasses of beer or stout, or half a tumbler of port wine.

In the writer's opinion, alcohol is not necessary to the healthy human being; its habitual use, even in small quantities, may do harm. Administered as a medicine in certain illnesses, it has value.

**Treatment.** The treatment of habitual over-indulgence in alcohol is to cut off the supply. It is probably wise to do this gradually, especially in very heavy drinkers. Again, a country holiday or a sea cruise with supervision and companionship may be enough to break the habit; but such means may fail, because the craving for alcohol saps the will-power, and the patient will display cunning to obtain his supply.



If the habit is serious, a time spent in a Home will be necessary, or in an Institution which specialises in such treatment.

### DYSPEPSIA OR INDIGESTION

**Acute indigestion** follows the eating of some unsuitable food, or the taking of a heavy meal when tired, or a meal eaten too quickly or after a time of fasting.

The signs of acute indigestion are discomfort in the region of the stomach—that is, between the lower end of the breastbone and the navel—a discomfort which may amount to actual pain; sour or burning fluid may rise into the throat, or wind may be brought up, and there is often a feeling of sickness. Vomiting brings relief.

**Treatment.** Hot water—a teacupful taken to drink as hot as is comfortable—often gives ease; a few drops of essence of peppermint form a popular remedy; or, better, a level teaspoonful of bicarbonate of soda in a tumblerful of warm water.

If relief is not obtained by any of these means, give a teaspoonful of the compound bismuth powder in a wine-glass of cold water.

After the patient has vomited, or as the discomfort subsides, no solid food should be taken for some hours; and the first meal should be beef tea (or a meat extract in water), or milk and barley-water or Benger's Food.

### EARACHE

See under Deafness, p. 126.

**Treatment.** As a means of relief two or three drops of warm glycerine may be placed in the ear; at the same time a five-grain tablet of aspirin may be taken (half a tablet for a child of three or four years), and a warm bran-bag or a covered hot-water bottle held to the side of the head. (Do not poultice the ear.)

As earache often means a catarrh in the middle ear—the part of the ear behind the drum—and as this may

lead on to abscess, it is important that a doctor should see the sufferer.

## ECZEMA

Eczema is an inflammation of the skin, and probably the commonest of skin diseases. It is seen as an outbreak of small spots on a reddened area of skin; the spots being either open, wet, and discharging (*weeping eczema*), or dry, scaly, and crusted (*dry eczema*).

Eczema is always accompanied by itching, and the scratching that is provoked makes it worse.

**Treatment.** In the red, inflamed stage, calamine lotion, dabbed on and allowed to dry, is soothing. In the dry and scaly stage Lassar's paste may be used, with or without twenty minims of the liquor picis carbonis (tar solution) to the ounce of the paste.

Eczema is often associated with some other form of ill-health, notably constipation or a tendency to rheumatism or asthma: the general health must be considered. Meaty foods should be reduced in quantity, and alcohol avoided.

### Eczema of the Scalp.

A common trouble in infancy, often associated with changes of diet, or with such troubles as teething.

The scalp and face, and sometimes the arms at the same time, are covered with an itching rash, which soon becomes crusted.

**Treatment.** The treatment is first to correct any error in diet: the quantity of fat taken should be reduced—for instance, in a bottle-fed baby a half-cream milk should be given instead of full-cream. Make sure that none but smooth-texture garments are worn. Do not use soap and water to the affected part; clean with olive oil instead.

Remove the crusts, preferably with a starch poultice. (Powdered starch, with a small quantity of boracic powder added, is mixed to a paste with cold water, and



then boiling water poured in, stirring, until a jelly forms. Allow this to cool, and then spread on lint and apply as a poultice. Renew at intervals of an hour or two until the crusts are cleared.)

When crusts are removed, apply an ointment made by mixing cold cream and zinc ointment in equal parts, and clean daily with olive oil.

## ERYSIPELAS

A local febrile disease producing a deep red colour of the skin. Erysipelas usually affects the face. A patch of skin becomes red and shiny, and small blisters may appear on it; the redness spreads rapidly, and there is a rise of temperature with general feeling of illness.

**Treatment.** Rest in bed; low diet; attention to the bowels; and keeping the affected part covered from the air. An antiseptic dusting-powder is useful; but a better application is a paint of ichthyol in glycerine (one part in ten). Erysipelas is a septic infection liable to produce general, and possibly serious, illness; and the usual medicinal treatment is by one of the "sulpha" drugs and by the administration of penicillin: such treatment being directed by a doctor.

Erysipelas is liable to recur; and therefore any possible cause, such as septic teeth, should, if possible, be removed.

## EPILEPSY

See Fits, p. 142.

## EPISTAXIS

This is the scientific name for **bleeding at the nose**.

It may be due to a blow, and stops quickly unless the lining of the nose is torn. Epistaxis also occurs in colds, as a result of congestion of the lining membrane of the nose, and is brought on by violent blowing of the nose.

Epistaxis may also come on without apparent cause, especially in people who are constipated or jaundiced, or suffering from high blood pressure.

In most cases bleeding soon stops; but it may be alarming, and children are easily frightened by it.

**Treatment.** Put the patient at rest in a chair or in bed, with the head raised. Apply ice-water compresses to the nose and forehead, and to the back of the neck.

Give ice to suck.

If bleeding persists from one nostril, plug that nostril with a strip of gauze soaked in a solution of witch-hazel or use adrenalin gauze tape, which is sold in tins.

When bleeding has stopped, give an aperient; and in children and young adults give calcium in some form for a few days; a convenient form is the five-grain tablet of calcium lactate, and three or four of these tablets may be given daily.

Calcium increases the coagulability of the blood, and so makes the bleeding less likely to recur.

## EYE, COMMON DISEASES OF THE

A few of the commoner eye troubles may be mentioned here.

### Conjunctivitis.

This is an inflammation of the lining membrane by which the eyeball is attached to its socket. There is a sensation of "sand in the eye", with heat and a flow of tears; the white of the eye is reddened. The condition is caused by cold winds, dust or other forms of irritation, and sometimes by an inturned eyelash. It may also be a part of a catarrh, and especially hay fever.

**Treatment.** Bathing the eye with a boracic lotion two or three times daily is enough to cure in many cases; or a witch-hazel lotion may be used—a teaspoonful of extract of witch-hazel in half a tumbler of water. An inturned eyelash should be pulled out.



### Blepharitis, or Inflammation of the Lids.

This may be treated by careful and thorough cleansing with boracic lotion, and the application of the ointment of the yellow oxide of mercury—known as golden eye ointment.

### Stye.

A stye is a small abscess formed around the root of an eyelash. It commences with redness and pain, gradually becoming a yellowish swelling with an eyelash at its centre.

Treatment is by application of hot water or boracic lotion; this hastens the progress and relieves pain. If the central eyelash can be recognised, it may be pulled out.

A mild ointment, such as boracic, or a diluted golden eye ointment may be smeared along the lids, and this may be continued after the stye has discharged.

Styes are often a sign of a run-down state of health, and tonics will be needed. If styes are recurrent, it will be well to test the vision, and correct any eye-strain with suitable glasses.

### Squint.

Squint in children should never be neglected.

Not only does the fitting of suitable glasses cure many cases, but exercises are nowadays prescribed to bring the eyes into correct line.

### Cataract.

Cataract is a disease of advancing years, in which the crystalline lens of the eye gradually becomes cloudy and opaque. Thus the eye slowly loses its sight.

**Treatment.** The treatment to restore the sight is to remove the lens when the vision of the eye has com-

pletely gone; and then to fit a suitable lens to be worn as spectacles. This, of course, is for an expert.

See also *Foreign Bodies in the Eye*, p. 146.

## FAINTING

In fainting the patient has a feeling of dizziness or "far-offness", or will say afterwards that "everything seemed to go black". Unconsciousness follows; the patient sags forward where he or she is sitting, or falls to the ground; the face is white, respiration quiet, and pulse hardly to be felt.

**Treatment.** The treatment is to lie down or get the head down between the knees immediately on beginning to feel faint: take a drink of water—the mere act of swallowing is a stimulant to the heart—or take a teaspoonful of sal volatile (aromatic spirit of ammonia) in a wineglass of water; or use smelling salts.

If actual fainting has occurred, immediately lay the patient flat; loosen tight clothing round the neck and waist; clear any bystanders back to give air; dash cold water on the patient's face, or flick gently with a wet cloth. Smelling salts may be held to the nose.

Fainting, though often due to some sudden shock or emotion, may have its origin in some condition of ill-health such as anæmia or indigestion; and such should receive attention.

## FIBROSITIS

This is a form of rheumatism affecting muscles and fibrous tissues, as distinct from the form of rheumatism which affects joints. Examples are **stiff neck**, and **lumbago**: other places in which fibrositis frequently develops are in the heel and around the shoulder and elbow.

Treatment is, as in other forms of rheumatism,



directed not only to the cure of an attack, but to prevention also.

**Preventive Treatment.** Avoid draughts of cold air; change clothing and shoes if wet; attend to the general health.

**Treatment in the Attack.** Take no meat or seasoned foods; drink plenty of barley-water or plain hot water. For medicine, sodium salicylate in four-hourly doses of ten to fifteen grains is useful: or aspirin may be taken for relief.

Use the liniment of wintergreen, or one of the preparations of menthol and wintergreen sold in collapsible tubes, for rubbing the affected part. Apply heat: a bran-bag or hot-water bottle will do; but better still are the forms of electrical heat, either diathermy or radiant heat (infra-red rays). As the acute stage passes off, massage is good.

Certain Spas are useful, as in rheumatism generally.

## FITS

Three kinds of fits are commonly seen: the **Epileptic fit**; the **Apoplectic fit**; and the **Hysterical fit**.

### The Epileptic Fit.

The subject of epilepsy usually gives a cry and falls to the ground. He is unconscious, grey, and makes jerky movements with face and limbs. The eyes are open, fixed, and staring: there is often froth on the lips.

The jerky movements are followed by a general stiffness, and this in turn by relaxation and drowsiness. Many epileptics sleep for hours after their fits.

The epileptic is usually young, whereas apoplexy attacks elderly folk. In epilepsy the face is pale and grey, while in the apoplexy the face is flushed and congested. In epilepsy all the limbs may jerk, while apoplexy more often affects one side only. The epileptic

fit is usually short, while the apoplectic fit may continue for hours.

**Treatment.** Loosen tight clothing, especially round the neck; put a roll of handkerchief between the teeth to prevent biting of the tongue; press the bystanders back, so as to give air. Restrain movements just sufficiently to prevent the patient from injuring himself: if he has fallen in the roadway, drag him to a place of safety.

Do not attempt to give the patient anything to drink.

As soon as the fit (*i.e.*, the jerking) is over, and the stage of relaxation is reached, convey the patient home or to hospital. Epileptics often carry a label round the neck or inside the coat, giving name and address and the fact that they suffer from fits.

### The Apoplectic Fit.

An apoplectic fit or "stroke" or "seizure" results as a rule from the breaking of a small blood-vessel in the brain, with consequent irritation or pressure in, or destruction of, some part of the brain tissue. The fit is sudden and unexpected; the patient is unconscious, flushed and breathing stertorously, and has probably vomited.

**Treatment.** The immediate treatment is to prevent self-injury; but removal to a place of safety must be done with the utmost gentleness, as movement may easily increase the hæmorrhage which has already taken place in the brain.

Get the patient carefully to bed. Better improvise a bed downstairs than drag him up an awkward staircase. Raise the head on pillows and apply cold-water cloths. Do not give anything to drink during unconsciousness; and avoid alcohol and other stimulants.

As consciousness returns an aperient may be given (Epsom salts, or three grains of calomel), and milky drinks or barley-water given to quench thirst. Use a



feeding-cup: a small teapot will do if a proper feeding-cup is not available: moving of the head, and sitting up, are unwise.

After a few days the immediate risk of further hæmorrhage has passed; but rest in bed must be insisted on for two or three weeks.

The person who has had an apoplectic fit must live an abstemious life, and be relieved as far as possible from worry. He must have little or no butcher's meat, no seasoned foods, no alcoholic drinks; and meals should be limited in quantity.

Plenty of rest, and strict attention to the bowels; these are also rules to be observed.

### The Hysterical Fit.

The subject of a hysterical fit is almost always a girl or young woman.

The fit differs from epilepsy in that there is no cry, and not the same sleepiness afterwards. The fit may be prolonged, or the patient may seem to be recovering and relapse into a fit again. Laughing and crying are often parts of a hysterical seizure. As a rule the pulse is good; the patient can be roused, and the application of cold water to the face revives. The patient should be spoken to with some sternness and encouraged to get well; unwise sympathy may prove a cause of relapse.

**Treatment.** The treatment is, when the fit is over, the treatment of hysteria. Any errors in bodily functions must be corrected; the mind must be occupied; and a healthy open-air life must be enjoined.

### FLAT-FOOT

A condition in which the foot, instead of being arched, lies flat on the ground in standing. Two arches are concerned: the front-to-back arch (antero-posterior arch), and the arch across the bases of the toes (transverse metatarsal arch).

The causes are too much standing; rheumatism; and poor health.

Treatment is:

- (1) To improve general health.
- (2) Deal with any rheumatism present, by administering ten-grain doses of salicylate of soda, and tonics.
- (3) Avoid too long standing.
- (4) Exercises and massage. A good exercise is to rise on tiptoe a dozen times, while standing in a bowl of hot washing-soda and water or hot or cold sea-water (which may be made at home by adding sea-salt to the water). Massage and manipulation are of great value.
- (5) The wearing of arch-supports in the shoes.

## FOREIGN BODIES

Foreign bodies—which term includes various substances which are not natural to us—may be

- (1) Swallowed,
- (2) Inhaled,
- (3) Placed in the ear, eye, or nose, or other body aperture.

### Foreign Bodies in the Ear.

Children sometimes put such things as beads or peas into their ears in play.

**Treatment.** If this happens, fill the ear with warm olive oil, and turn the head down and to the affected side, so that the oil runs out. If this does not succeed, the ear must be syringed with warm water. This should be done by a doctor, as ineffective syringing may leave a moistened pea or other seed to swell in the channel of the ear.

Insects in the ear usually float out if the ear is filled with warm olive oil.



## Foreign Bodies in the Eye.

Specks of grit often get under the eyelids, and cause a good deal of pain and redness in the eye.

**Treatment.** *If on the lower lid*, it is sufficient to draw the lid down, and wipe away the grit with a clean piece of cotton-wool moistened with warm water or boracic lotion.

*If beneath the upper lid*, draw the lid down over the lower lid: this causes a gush of tears, which may be sufficient to wash out the offending particle.

If this does not succeed, turn up the lid, holding its upper part by a thin probe or knitting-needle placed horizontally along it and lift the lid by grasping the eyelashes.

The particle will be seen on the surface of the lid, and may be wiped off.

*If embedded in the front of the eyeball*, the condition is more serious, and the help of a doctor should be sought.

In places where a doctor is not available, a drop of two per cent. solution of cocaine may be placed on the eye, and the speck gently wiped off with a probe wrapped with cotton-wool. Care must be taken to avoid damaging the sensitive cornea (the transparent portion of the eyeball); and in all cases the eye should be washed with warm boracic lotion.

## Foreign Bodies in the Nose.

Children often poke things up the nose "for fun"; beads, peas, and bits of pencil in particular.

**Treatment.** Sometimes the article can be seen, and can be hooked out with a bent hairpin—pass the loop of the hairpin carefully beyond the foreign body, and draw it gently down; or a sniff of pepper may cause the article to be sneezed out. Blowing the nose is often sufficient.

If the foreign body is out of reach, then a doctor

should undertake the removal, as it is very easy to do damage to the delicate structures within the nose.

### Foreign Bodies Inhaled.

Pieces of food, or small objects held in the mouth by children, or, for that matter, by adults, may become drawn into the upper part of the throat or the windpipe by sudden coughing or laughter. A sensation of choking immediately follows.

**Treatment.** If the object is small and the patient an adult, and the symptoms no more than a desire to cough, the patient should be told to hold his breath.

Children should be at once turned upside down, and slapped on the back; a finger may be passed to the back of the throat in an effort to clear anything lodged there.

### Foreign Bodies Swallowed.

The swallowing of a small rounded object, such as a cherry-stone or button, is seldom followed by trouble: the foreign body is enclosed in the food, and passes along the bowel to be discharged with the evacuation. Larger objects, such as coins, or sharp or angular things like pins, pieces of pencil, and toy whistles, may give rise to some alarm. In such cases it is desirable to locate the foreign substance by means of X-rays, as it may be too large to pass from stomach to bowel, and will remain in the stomach until removed by operation.

Children often swallow small things in their play.

**Treatment.** Give meals of pasty material such as bread and milk, rice pudding, or bread and butter, and keep the child at rest. No opening medicine should be given, for fear of causing damage to the intestine by setting up violent movements. When the bowels act, the material evacuated must be examined carefully, and search made for the foreign body (mixing the material with water with a fork); for it is wonderful what com-



paratively large objects will pass through—a halfpenny often does so.

A fish-bone easily lodges in the upper part of the throat. If it can be seen when the mouth is widely opened, it may be grasped with forceps and removed; if this is not possible, give a piece of bread to eat; for in many cases the fish bone will be carried down, and will then do no further harm.

## FRACTURES

A bone that is broken is spoken of as fractured, and in writing of fractures we might equally well write “broken bones”.

### Signs of Fracture in Bones.

In fractures of bones, and especially the bones of the limbs, the signs are usually described under six headings, as follows:

- (1) Pain.
- (2) Swelling.
- (3) Deformity.
- (4) Loss of use.
- (5) Unnatural mobility.
- (6) Crepitus.

All of which means that a broken bone gives rise to pain; that there is usually swelling about the broken place; that there is an alteration in the shape of the limb; that there is movement where there should not be; that the limb cannot be used for this reason, and because of pain; and that if movement is made at the broken place, the ends of the broken part may rub against each other and produce a grating feeling which is known as “crepitus”. It is best not to try to produce this crepitus, for undue movement may cause injury to nerves or blood-vessels or muscles.

There are some exceptions to this rule of signs in fractures: the signs are different in those bones which do not ordinarily move—for instance in the bones of the skull—and the bones in childhood are not brittle and do not break cleanly across, but break like a green stick, which bends and cracks without coming into two pieces—hence the term “greenstick fracture”.

**Treatment.** It is necessary to lay down some rules for the “first aid” and treatment of fractures; but it cannot be too strongly emphasised that every fracture should be seen by a surgeon, as the responsibility attached to the future usefulness and appearance of a broken limb is too heavy for domestic treatment to undertake.

*The first and most important rule of treatment is rest.* Movement in the fractured place must be prevented. For this purpose we use splints as a first aid measure; these are thin light pieces of wood or other stiff material, padded with tow or cotton wool; and a splint can be used to fix and support a broken limb. Therefore with great gentleness correct the deformity and apply the splint. In many cases a hard casing of plaster of Paris is used to maintain the alignment and to prevent movement in the fracture of a bone in a limb.

In the case of a limb, it is important to fix the joint above, and the joint below, the fracture, so that complete rest may be assured.

If possible a fracture should be X-rayed, so that the position of the broken fragments may be known and corrected; but as this book may be in the hands of those who are far from skilled medical aid or the possibility of X-rays, let them be assured that if deformity is gently corrected, and the broken limb placed at rest as described, the broken bone will unite in the course of three or four weeks, and the ultimate result will be as good as the circumstances allow.

An arm-bone takes three or four weeks before use may be allowed; a leg or thigh-bone five or six weeks; and



use, and especially weight-bearing, must be commenced with great caution.

Though it may be necessary to keep a broken limb at rest on a splint or in plaster for a number of weeks, it may be mentioned here that where skilled attention is available, massage is often used after the first few days: this, however, must be in expert hands, for fear of a displacement of the broken ends before they have firmly united. Massage undoubtedly restores use which mere rest may delay.

General principles having been mentioned, notes may be given on some special fractures.

### 1. The Clavicle or Collar Bone.

Easily seen, because the collar bone is close under the skin. Making all movements very gently, place a pad of cotton-wool, well powdered with boracic, under the arm, then sling the wrist up to the neck, and fasten the arm to the side with a broad binder. After maintaining this position for a week, gently move the forearm to and fro at the elbow for a few minutes every day. After three weeks movements at the shoulder may begin.

The sling should be of the "St. John's" type, so that no pressure falls on the injured collar-bone: in children the arm may be slung up by means of a collar and cuff.

An alternative method of first aid is the "Brace", applying the bandages as pictured on p. 89.

### 2. The Upper Arm or Humerus.

The broken bone itself should be steadied by at least two splints, one of which should be L shaped, so as to fix the elbow and support both upper arm and forearm. Use a narrow sling, so that the weight of the forearm helps to keep the broken bone in line.

### 3. Forearm.

Front and back splints are used, and a sling: the forearm is placed so that the thumb is uppermost.

#### 4. Wrist.

Fracture just above the wrist is one of the commonest of all fractures, and is usually caused by a fall on the outstretched hand. The nature of the fall not only causes a fracture of the bone, but in many cases drives the two ends of the broken bone one into the other, so that a fixed or impacted fracture occurs with some deformity. It is important that the deformity should be corrected if possible. The hand and forearm are then supported on a splint so shaped that the hand is turned slightly towards the little-finger side: the splint may with advantage be so applied that movement of the fingers is allowed.

#### 5. Thigh.

First aid may be rendered by fixing the limb to a long wooden splint extending from the armpit to beyond the foot. This will make transport possible, especially if the two thighs are fastened together for the journey; but a long splint is not sufficient for effective treatment, owing to the tendency for the broken ends of the bone to overlap and allow shortening of the limb. Some form of extension (stretching) of the limb is necessary: this is provided by pulleys and a weight, attached by some adhesive to the lower leg; or, if possible, by a caliper or pair of metal pins fixed to the opposite sides of the lower fragment of the broken bone; this, needless to say, is a matter for a surgeon.

#### 6. Leg.

Either of the bones of the leg may be broken, though in most cases both are broken at the same time.

A common leg fracture is "Pott's", in which the fibula (the thinner of the two bones of the leg) is fractured above the ankle, and either the tip of the tibia broken off or the binding ligament of the ankle-joint torn away from it.



The leg must rest on a splint with foot-piece attached: by this means the ankle is kept at rest, and the foot prevented from becoming dropped. The leg is steadied by a splint at either side.

In putting on splints, be sure that they are well padded, and that no pressure is exerted on bony points.

In fractures of leg bones a plaster casing is now customary, and with such a casing it is possible to permit walking. In places where there are no facilities for "plaster", good results can be obtained by the use of splints as described.

### 7. Spine.

A fracture of the spine is always an accident of great gravity. Such fractures are caused by falls, such as a fall from a ladder or a fall from a horse, or by crushing force as in railway and motor accidents. In addition to the nature of the accident, and the shock and collapse following a severe injury, a fracture of the spine is recognised by inability to move the legs (arms also, if the fracture is in the neck) and loss of feeling.

In lifting a patient who is suspected of having a fractured spine, take the utmost care to avoid any bending of the spine. Grasping coat or clothing at several points on each side, slide the patient gently on to a hard stretcher or other support such as a door, and carry very carefully.

### 8. Ribs.

One or more ribs may be fractured by heavy falls, or by crushing force. The signs (with the history of the injury) are a sharp pain with every breath, a desire to cough, and blood-stained expectoration if the broken bone has damaged the lung.

The patient should be propped up in bed with a binder firmly bound round the chest—a roller towel serves very well—or the affected side of the chest may be supported by adhesive plaster strips, and a sedative cough mixture given.

## 9. Skull.

A fracture of the skull may be caused by a blow on the head, as, for example, by a tile or brick falling from a building; or by a fall on to the head, in which case either the vault of the skull or its floor may be fractured.

The patient is usually unconscious; there is the history or evidence of the injury; there is a wound or bruise on the head; there is vomiting, and the breathing is stertorous.

If the fracture is in the floor or "base" of the skull, there may be bleeding from an ear.

The danger in fracture of the skull is the possibility of injury to the brain.

First-aid treatment is careful removal to bed; then rest and quiet for several weeks.

Careful nursing attention is necessary, as the patient may be unconscious for several days; there is also the possibility that the bladder may be full, and that this will require relief by catheter.

## GASTRIC ULCER

Persistent indigestion (or dyspepsia) in which a gnawing pain begins an hour or more after food, and which is relieved by the eating of more food or the taking of an alkali (such as bicarbonate of soda) should always be a cause for medical investigation, in view of the possibility of an actual ulceration in stomach or duodenum. Treatment, which comprises diet, rest, and the administration of alkalis, should be directed by a doctor.

## GASTRITIS

A true inflammation of the stomach is not really common, though the term "gastritis", which has that meaning, is much in popular use. It may result from some irritant substance swallowed, or may develop from



indigestion and gastric catarrh, especially in states of ill-health.

Vomiting and severe stomach pains are the prominent symptoms, and the patient feels, and looks, very ill.

**Treatment.** Relief is obtained by hot water sipped, and by repeated ten-grain doses of the carbonate of bismuth.

The patient should be in bed until pain and vomiting have ceased; and at first only water is to be given, to relieve thirst. When pain and vomiting have ceased, fluids such as milk and barley-water may be given in small quantities; and if the patient takes this without discomfort, Benger's Food and other milky foods, such as junket, may be added to the diet, and solid food gradually tried when beaten-up egg and the various milk puddings (ground rice, semolina, tapioca, egg custard) have proved satisfactory.

### GASTRO-ENTERITIS

An inflamed state of the stomach and bowel, characterised by pain, vomiting, and diarrhœa. It is frequently epidemic, but occurs also after the taking of irritating food. It is often seen in infants: the "Summer Diarrhœa" is a gastro-enteritis.

**Treatment** is rest in bed, warmth, and boiled water to drink.

The danger in gastro-enteritis is in the loss of fluid from the body; therefore endeavour to make good this loss by giving water or sugar-water or glucose-water by the mouth; and if vomiting persists, boiled water with one teaspoonful of common salt to the pint may be given with funnel and tube into the bowel. (In infants, particularly, this salt solution, or normal saline as it is called, has been given in many cases through a needle into the loose tissues beneath the skin of the body: this, again, is a question for a doctor.)

To adults, a dose of ten grains of carbonate of bismuth with twenty drops of chlorodyne may be given; but

chlorodyne should not be given to infants. A simple bismuth mixture is best for infants and young children; and during the attack it is best to give no milk.

### GERMAN MEASLES

(Also known as Rubella)

This is a mild disease, but it may have a serious influence on infant health if occurring in an expectant mother. The rash consists of small closely-set spots, appearing first on the face.

The spots are, as a rule, more separated than scarlet fever spots, and smaller than the spots in measles.

Spots may be seen on the roof of the mouth; but the throat is not usually very sore.

There is little or no feeling of illness; rise of temperature is slight. The appearance of small hard glands at the back of the neck is a characteristic feature.

**Treatment.** Isolation until the spots have faded. Bed, and opening medicine (milk of magnesia); light diet.

### GOITRE

Goitre is an enlargement of the thyroid gland in the neck: it may or may not be accompanied by ill-health.

**Simple Goitre** is seen in certain localities, notably among high hills, and is probably the result of a lack of mineral salts (and particularly of iodine) in the drinking-water.

The swelling is visible: a rounded mass on each side of the voice-box and windpipe; and the subject of simple goitre is usually a pale-faced adolescent.

It is said that the taking of iodine in small daily doses prevents the formation of goitre; and for this reason iodised lozenges have been given as a routine to children in mountainous districts where goitre is prevalent.

Simple goitre is not dangerous in itself; but it is a disfigurement, and may cause distress from pressure on the trachea (the windpipe).



**Treatment.** If it does not improve under general tonic treatment—plenty of green vegetables, iron, and cod-liver oil—the advice of a surgeon may be taken on the question of its removal.

**Exophthalmic Goitre**, also known as Graves' or Basedow's Disease, is a condition in which the enlargement of the thyroid is accompanied by signs of ill-health due to the over-activity of the thyroid gland. This disease sometimes follows a nervous shock; and the signs of ill-health are palpitations, trembling of hands, and prominence of the eyes.

**Treatment** is by attention to the general health, rest, and at the same time tonics and cod-liver oil. Administration of iodine in drops should be under the direction of a doctor.

Other lines of treatment sometimes used are X-rays, and the removal of the enlarged gland by operation; but these are questions for the expert to decide in each individual case.

## HABITS

Children are especially liable to small habits, of which the chief are nail-biting, nose-picking, blinking, and masturbation. There is often some definite cause for these habits, such as teething (in infancy and early childhood), indigestion and any unhealthy condition of the bowels, worms, adenoids, and, in little boys, a tight foreskin.

It will easily be understood that habits are particularly liable to develop in lonely children, and "only" children who are much in the company of adults, because such children easily become introspective and precocious.

**Treatment.** In treatment, therefore, the first thing is to discover the cause; and if some actual physical cause above is found, to remove it. Having removed the cause, or in cases where no cause can be found, then the treatment is:—

(1) Improve the general health. The robust, healthy, happy child, who sleeps well, seldom develops these habits: more likely subjects are the pale and nervous children.

(2) Avoid needless reference to the habit. To say "don't pick your nose" may simply engrave the habit deeper on the child's consciousness; and punishment may make a child furtive and secretive.

(3) Realise that there may be a psychological side: some grievance, possibly imaginary; some resentment, some misunderstanding, may have to be cleared up. These habits may be evidences of stress or anxiety in the mind of the child, and restraint or punishment may merely increase this stress; and some children develop habits as a result of parental fussiness. Child Guidance Clinics are of great value.

(4) Make sure that the child has ample sleep: avoid such excitements as visits to the cinema and the pushing of a clever child at school.

(5) Blinkings and other involuntary movements may be signs of Chorea or St. Vitus' Dance, and about these a doctor should be consulted.

## HÆMATEMESIS

Hæmatemesis means vomiting of blood. It occurs in two chief conditions:—

(1) *When blood has been swallowed, as in nose-bleeding or after extraction of teeth.* The blood may then be vomited up; it may be bright in colour, but has often undergone some change in the stomach so as to become dark.

**Treatment.** The treatment is, of course, to check the bleeding which has been the source of the bloodswallowed; no other treatment is needed, and the mere vomiting of blood in these circumstances need cause no alarm.

(2) *In ulceration of the stomach.* In this case the blood is of a dark brown colour, and is often spoken of as



“coffee-ground vomit”: there is almost certainly a previous history of indigestion or of stomach pain, and particularly of pain an hour or more after eating.

**Treatment.** The treatment of this condition is absolute rest, with a little ice to suck and nothing else given by the mouth, and fluid (saline) or nourishment by the bowel (given with a funnel and tube).

Medicinal or surgical treatment should be decided by a doctor after examination of the patient.

## HÆMATURIA

This is a condition in which blood appears in the urine. The blood may come from either kidney or bladder, and the occurrence of severe pain in either loin, running round the flank to the groin, would suggest stone in the kidney.

**Treatment.** Beyond putting the patient to bed, and confining the diet to milk, no advice in the form of domestic medicine can be given; as this is a complaint in which a surgeon should be consulted.

## HÆMOPHILIA

Hæmophilia is the name given to a tendency to bleeding which runs in certain families, and the subjects of hæmophilia are known as “Bleeders”.

In such people, small things like the extraction of a tooth, or a cut finger, are followed by alarming and seemingly uncontrollable hæmorrhage: the blood goes oozing on and on, until by slow degrees a great quantity is lost, and profound pallor and anæmia result.

**Treatment.** Bleeders must take every possible care to avoid such injuries as cuts and abrasions and extractions of teeth.

If bleeding occurs, apply lint wrung out of hot normal saline (one teaspoonful of common salt to the pint of hot water), and cover with a firm bandage: or plug the

tooth socket and clench the jaws over a pad to exert pressure.

If homely methods fail, get your doctor to arrange for a blood-transfusion.

Mention may be made of the recent use of snake venom (diluted many thousand times) as a local application to wounds in bleeders.

### HÆMOPTYSIS

This means coughing and spitting of blood, as distinguished from hæmatemesis, which is vomiting of blood. The source of blood-spitting may be:—

(1) In the mouth itself: after the extraction of a tooth everything that the patient spits is blood-stained.

(2) In the throat. A hard cough with inflamed tonsils may cause streaks of blood to appear in the expectoration.

(3) In the lungs. This is the most important, and must never be treated lightly.

Coughing up of blood occurs in tuberculosis of the lung, the disease commonly known as consumption, and in the congestion arising from valvular heart disease; in pneumonia, also, the expectoration is tinged with blood (rusty sputum).

Blood from mouth and throat is seldom of serious importance, unless a tooth-socket is bleeding badly, usually by reason of a lacerated gum: in this case the socket should be plugged with sterile gauze tape, and the jaws clenched for a few minutes on a wad of gauze.

**Treatment.** In coughing of blood from the lung: keep the patient still, propped up in bed. Allow no movement: give ice to suck; give no hot drinks. Reassure the patient, for he will be anxious over his alarming symptom.

Calcium lactate tablets may be given (ten grains every four hours) to make the coagulation of the blood more rapid; and a sedative cough syrup may be administered if there is a persistent cough.



## HÆMORRHAGE

This word literally means bleeding, but is generally used to signify bleeding of a dangerous or alarming character. If the bleeding is from wounds and injuries, apply pressure to the bleeding part if it can be done without risk of damage. If in a limb, hæmorrhage can be controlled by compressing the artery at a point nearer to the heart than the actual bleeding point. Arteries may be felt as "pulses", and may be compressed against a bone: notable examples are the artery on the inner side of the upper arm, and the artery in the front of the thigh just below the fold of the groin; and bleeding from injuries to arm or leg may be controlled by pressure at these places.

In bleeding from wounds of the scalp—for instance, after falls from a height or after injuries from falling objects, when there is a possibility that the skull may be injured—it is not advised to apply direct pressure to the wound, but to use a pad of firmly rolled lint shaped as a ring, and to bandage this to the head with the wound within its centre.

See also Epistaxis (p. 138), Hæmoptysis (p. 159), Hæmatemesis (p. 157).

## HAY FEVER

This is a distressing condition of sneezing, running at the nose, and redness and watering of the eyes, occurring chiefly in the early summer at the time when the grasses are flowering. It is due to the sensitiveness which some people have to substances present in the pollen of plants.

If it is possible for the sufferer to live away from grass and flowers, that is a sure means of prevention—for instance, hay fever does not attack people on board ship.

Otherwise some means must be sought

- (1) to prevent the attacks, or
- (2) to relieve the symptoms.

**Prevention.** A course of inoculations with the appropriate pollen vaccine gives the best hope of preventing hay fever. (It is possible by skin tests to discover which grass or flower or other substance is the responsible cause.) The inoculations may have to be repeated annually for some years, though one successful course will probably lead to a mitigation of the attacks in following seasons.

Electrical treatment has been much in the public eye of recent years; it is quite likely to prevent hay fever, for a time at least.

It must be emphasised that before other treatment of a preventive nature is undertaken, any diseased condition of throat or nose should be remedied.

**Treatment in the Attack.** Some of the distress may be relieved by nasal drops or sprays of an oil containing ephedrine. Many such preparations are sold.

Douching the nose at night with a one-in-ten solution of the compound glycerine of thymol in warm water may also help.

## HEADACHE

One of the commonest of all ailments. Headache may be *occasional*, or *persistent and recurrent*.

**Occasional Headaches**  
are caused by

- (1) Indigestion, constipation, and errors in diet:
- (2) Fatigue and colds.

**Persistent and Recurrent Headaches**

unless associated with definite ill-health or disease, are often due to eyestrain.

**Treatment of Occasional Headaches.** If constipation is present, a dose of opening medicine should be taken. An effervescent saline is suitable, and a compound



aspirin tablet may be taken with it. (See also **Constipation**: p. 120.)

Many people find that headaches come on after certain articles of food: if this is so, such foods should be avoided.

Headache of fatigue or cold is treated by warmth and rest, and a hot drink such as milk, with a compound aspirin tablet if desired. The cup of tea in such cases is proverbial: it depends for its action on the heat which it supplies, and on the fact that it contains a small quantity of a pain-relieving substance.

**Treatment of Recurrent Headaches.** The headache in eyestrain is usually in the forehead, and often on one side only; it commonly takes the form of "bilious headache" or "migraine". (See below.)

Eyestrain headache is relieved by rest for the eyes; such as sitting quietly in an armchair, or lying down, in a darkened room, with the administration also of a headache tablet such as compound aspirin or phenacetin and caffeine.

This is only a means of relief: the cure lies in the fitting of proper spectacles.

### **Migraine.**

This is a form of headache which often runs in families, and which is often associated with eyestrain. An attack of migraine may also be brought on by fatigue or excitement; and such things as a train or motor journey, or the anticipation of some form of pleasure, may cause the attack in susceptible people.

The attack is often preceded by a feeling of well-being; but soon there is a disturbance of eyesight in which a jagged line of light appears in the field of vision, usually to one side or the other. This grows in intensity, until the sufferer has great difficulty in concentrating his eyesight on anything. After a varying time, often from a quarter to half an hour, the vision becomes clear; but at the same time there is a feeling of nausea, and an

intense headache develops over one eye or across the whole forehead. The headache may be so severe that it renders the sufferer prostrate for the time being. The nausea increases until vomiting occurs, after which the headache diminishes, and the patient is left feeling depressed and "washed out".

**Treatment of Migraine. Prevention.** Attend to the general health; have any eye defect corrected; avoid constipation and the taking of foods known to bring on attacks—in many cases this refers particularly to fats; take no heavy meal at night, and avoid meat and wine in the evening.

If a journey or any excitement is to be undertaken, take two heaped teaspoonfuls of glucose in water early in the morning, and avoid hurrying. If glucose is not available, barley-sugar or even ordinary lump sugar may serve as a substitute. If in a train or a fast-moving car, do not watch the landscape out of the window.

**In the Attack.** At the first sign, take a level teaspoonful of bicarbonate of soda in a glass of warm water, and with this two compound aspirin tablets. (People who are not suited by aspirin may take phenacetin and caffein tablets.) Lie down with eyes closed in a darkened room. As the attack begins to pass off, a cup of tea may be taken; but no solid food until after vomiting has taken place, or until the patient feels decidedly better, and then only a light meal.

## HEARTBURN

This is a feeling of heat at the lower end of the breast-bone, usually occurring an hour or more after a meal. It has nothing to do with the heart, but results from an irritating formation of acid in the stomach. It is particularly apt to follow the taking of fatty or fried foods.

**Treatment.** Heartburn is quickly relieved by the taking of an alkali; such as half a teaspoonful of bicarbonate of soda in a wineglass of water, or a teaspoonful



of compound bismuth powder, or the sucking of a couple of antacid lozenges, such as soda-mints or milk of magnesia tablets.

To prevent heartburn, indigestible foods must be avoided, and an alkali kept at hand, as named above.

## HERNIA

Hernia is the word used to describe the condition in which some organ or portion of the body protrudes from the cavity in which it is normally contained.

In ordinary speech hernia refers to the abdomen, and the protrusion is called a rupture.

The commonest situation for a rupture is in the groin.

The cause is strain or long-continued cough, combined with a weakness of the abdominal wall.

The signs are a swelling in the groin, which in most cases disappears or can be pressed back on lying down: the impulse of coughing can be felt by a hand placed over the swelling.

Old hernias may become irreducible, which means that the swelling is permanent and cannot be pressed back into the abdominal cavity.

**Treatment.** All hernias should receive some effective treatment; otherwise there is a risk that the contents of the hernia may become nipped, and the symptoms and dangers of strangulation come on.

Treatment is either by fitting a proper support or truss; or by operation.

In small hernias it may be that the wearing of a truss for from six to twelve months will effect a cure, which means that when the truss is discarded the hernia does not reappear. But in many cases this does not happen, and then the question of wearing a truss permanently must be weighed against the question of operation.

Young people should choose the operation: older people whose muscles have begun to lose tone may choose the truss; but in older people there may be

cases where a truss does not effectively hold the rupture, or where nipping has occurred a time or two, and in such cases an operation is best.

### Umbilical Hernia.

In stout, and usually elderly, people, a protrusion may occur at the navel. This is often irreducible and often painful. If operation is not advised, a supporting belt should be worn.

In infants a protrusion of the navel is common: it often results from indigestion, and this must be corrected. Pressure may be exerted on the protrusion by means of a belt, or by adhesive plaster over a pad. The use of such support generally works a cure in a few weeks.

Hernias are sometimes seen in the scars of operation wounds, especially in people whose muscles are poor, and where a tube has had to be used for drainage. A suitable pad may be worn, but in younger people the hernia may be cured by operation.

### HERPES

An eruption of spots on the skin, following the line of a nerve. The spots are painful, and are commonly seen on the lip in the course of a cold. When they follow the line of an intercostal nerve (the nerve which runs at the lower border of each rib), the condition is known as *shingles*.

Herpes is often associated with some condition of general ill-health. It is not difficult to distinguish it from other eruptions on the skin: the groups of small spots, some with watery heads, following the lines of distribution of a nerve, and accompanied by neuralgic pain, are sufficiently characteristic.

**Treatment.** A zinc ointment may be applied to the spots, and tonics given. Aspirin, or phenacetin and caffein, or quinine, may be given to relieve pain. Tonics



are needed for the run-down condition which is often present.

Patients with shingles should be careful not to catch cold, to which they are liable.

An association between shingles and chicken-pox has been noticed: it sometimes happens that when the father of a family has shingles, one of the children will develop chicken-pox.

## HICCOUGH

Hiccough, or "hiccups", is a distressing spasm of the diaphragm, resulting in the well-known sharp intake of the breath known as hiccoughing.

It is usually due to indigestion.

**Treatment.** Sipping very hot water will often relieve; or the chewing of a lump of sugar on which five drops of essence of peppermint have been placed. The sufferer from an attack of "hiccups" should if possible remain quiet and still for a few minutes; this in itself will often work a cure. Another ready means of relief is the taking of a long, slow breath; this must be done deliberately and as deeply as possible.

Hiccoughing may be a troublesome condition in certain long illnesses, such as those affecting the heart or liver: in such cases the doctor in charge of the case should be informed, as the symptom is a trying one for the patient, and may interfere with rest.

## HYSTERIA

Hysteria is a functional disturbance of the nervous system. It takes various forms, such as fancifulness, imaginations, excitability, or actual convulsive attacks. It occurs almost entirely among young women.

See *Fits*, p. 144.

## IMPETIGO

A contagious skin disease, recognised by crusted patches, which follow groups of small watery heads. Impetigo is a disease of childhood; and though associated in our minds with dirt, it may occur in cleanly children, and especially those who are in poor health, who have become infected from others. It is most commonly seen on the face.

**Treatment.** By means of fomentations of boracic lint, soften and remove the crusts; then apply lint spread with white precipitate ointment (dilute ammoniated mercury ointment), or better, with an ointment containing one of the sulpha drugs (sulphathiazole). It is not enough to smear the ointment on the sores; the spread lint should be used, kept in place by bandage, and renewed twice a day.

At the same time attend to the general health: Parrish's Chemical Food is a suitable tonic.

## INDIGESTION

See Dyspepsia, p. 135.

## INFANTILE PARALYSIS

This is an inflammation of the spinal cord caused by an infecting micro-organism: it is a disease which attacks young children in particular. Happily it is not very common; but the fact that it is a serious disease, and that it occurs in the form of epidemics, makes mention of it in these pages necessary.

The complaint in its earliest stages may easily be mistaken for a feverish cold, but severe headache and stiffness of the neck are signs of the more serious condition. On the second or third day of the illness some



of the muscles become paralysed: a leg may be limp and useless, or a foot may be "dropped".

In most cases the paralysis slowly recovers, though often with some permanent weakness or wasting of a limb.

**Treatment.** If cases are known to be in the neighbourhood, children should be taught to gargle with a mild antiseptic such as Dettolin or Milton or a weak solution of permanganate of potash.

A doctor should see every child with feverish cold and stiff neck: this is important. Beyond putting the child to bed, and keeping to a fluid diet, no advice can well be given here, as the disease is one requiring skilled medical care.

If the muscles of respiration become paralysed, the dangerous time may possibly be tided over by placing the patient in what is popularly spoken of as an "iron lung", a machine which keeps up the movements of respiration.

## INFECTIOUS DISEASES

A number of days always pass between exposure to infection and the appearance of symptoms. This number of days is different in different diseases, and is called the **incubation period**.

Also, to prevent spread of infection, a person suffering from an infectious disease must be kept away from others—isolated, as we say—not only during the time of actual illness, but also for a number of days after: this number, again, is different in different diseases, and is known as **isolation period** or **quarantine**.

And, thirdly, it is usual to keep children who have been in contact with infectious diseases away from school until the incubation period is well over.

The following are some of the commoner infectious diseases, with their incubation period and quarantine.

<i>Incubation.</i>	<i>Quarantine.</i>	<i>Isolation of contacts.</i>
<b>Chicken-pox.</b> 12-21 days, average 17.	Until all scabs have fallen off (about 21 days).	21 days.
<b>Diphtheria.</b> 2-10 days, average 4 or 5.	Until nose and throat are free from diph- theria organisms (at least 4 weeks).	10 days, or with same precautions as under "quar- antine".
<b>Enteric Fever</b> (Typhoid Fever). 10-15 days, average 14.	Until the patient has quite recovered.	Uncertain.
<b>German Measles.</b> 10-21 days, average 17.	Until rash has dis- appeared (1 week).	21 days.
<b>Measles.</b> 10-17 days, average 14.	14 days from onset of rash.	21 days.
<b>Mumps.</b> 14-21 days.	1 week after swelling has gone.	24 days.
<b>Scarlet Fever.</b> 1-8 days.	At least 4 weeks, or until all symptoms have disappeared.	10 days.
<b>Whooping Cough.</b> 7-19 days.	6 weeks.	21 days.

## INFLUENZA

This troublesome complaint seems to be always with us, cropping up at intervals in epidemics which may be mild or severe. The disease may be described in three forms or types, according to the seat of chief symptoms being the respiratory, the digestive, or the nervous system.



**The Respiratory Type**, the ordinary attack of "flu", begins with headache, chilliness, aching in limbs and back, sore or dry throat, and often dizziness and a feeling of great weakness. It comes on rapidly; the temperature usually rises, and the patient has no option but to go to bed—he is unable to keep about. There is often a dry, hard cough, which becomes looser in a day or two, but which may develop into a bronchitis. After a few days the headache and pains are better, and the temperature normal: after a day of normal temperature the patient may get up, but feels weak and dizzy.

**The Gastric Type**, commonly known as "gastric flu", has a similar onset, but prominent symptoms are nausea and vomiting, with or without diarrhoea.

**The Cerebral Type** has as its prominent symptoms intense headache, with drowsiness and vomiting.

**Treatment.** At the first onset, the patient must go to bed. It is useless to try to "fight influenza off"; once the symptoms have begun, the disease has got hold, and will run its course, which may be quite short and mild, or may be more severe. Bed, therefore, preceded by a hot bath if the patient is able, and followed by a hot drink with a couple of aspirin tablets or aspirin with Dover's powder: a dose of opening medicine if necessary; plenty of warm fluids for diet, and no solid food until the temperature is normal. Cough, headache, and joint pains may be met by suitable medicines; a stimulant cough mixture for the one, and aspirin compound for the other.

Influenza is a depressing complaint; it leaves the patient weak and "washed out", despondent and without energy. Any effort during early convalescence produces a feeling of great fatigue. One of the various tonic food-drinks, and particularly such as are rich in phosphorus (as for example Sanatogen), may help to restore energy: give light and nourishing meals at frequent

intervals, and for medicine the compound syrup of the hypophosphites (a teaspoonful in water three times a day), or cod-liver oil with extract of malt. The bowels will probably be sluggish; cascara and senna are useful aperients.

Pale and run-down people who find difficulty in "picking up" after influenza may derive benefit from a course of "artificial sunshine"—the ultra-violet rays, if such treatment is available.

### Inoculation.

People who are subject to influenza may find partial or complete protection in a course of two or three doses of an anti-influenza vaccine, given with a hypodermic syringe at intervals of a week. This should be under medical advice only. It does not protect everybody; some are disappointed in its effect upon them, but it is quite harmless, and certainly affords a measure of protection to a great proportion of influenza subjects. If it fails to prevent the appearance of the attack, it will make it milder, and will give protection from the complications which really constitute the danger in influenza.

The best time for protective inoculation is in the autumn—say September—the protection lasts for about six months.

### INGROWING TOE-NAIL

In this condition, caused as a rule by the pressure of shoes, the flesh at the side of the nail becomes inflamed and swollen, and bulges over the edge of the nail. The name, therefore, is not quite accurate; the nail itself does not alter, but, being hard and resistant, is enclosed by the inflamed flesh. The great toe is usually the one affected.

Treatment is first of all preventive; make sure that shoes are well-fitted and comfortable.



The treatment of the condition is to get the foot well soaked in a disinfecting lotion. Then cut the nail short, and round its corners; lift up the over-growing flesh by tucking a small piece of boracic lint soaked in glycerine beneath it.

This should be repeated two or three times daily. If the over-growth is very exuberant, it may be touched with a piece of bluestone (sulphate of copper).

The feet must be kept scrupulously clean, and dusted with an antiseptic powder.

This treatment should succeed: if not, a piece at the side of the nail must be cut away. Be sure to give the toe a plentiful soaking with the weak tincture of iodine before cutting the nail.

## INSOMNIA

Insomnia means sleeplessness.

Most people have a wakeful night now and again; but the question is, what to do when night after night is sleepless, and the sufferer from insomnia only goes to bed to toss and turn until the morning.

Insomnia is a wearying thing; but it is not in itself a danger to mental balance. It is often the result of anxiety or worry; and a rest and change for the mind before bedtime comes are valuable. Thus, after supper the patient might take a walk for half an hour, and then sit listening to music. He can then go to bed prepared—and expecting—to sleep. A cup of one of the warm milk-drinks—warm, not hot—will help.

Some people rest better with a low pillow, others with a high.

In some cases a person will go to sleep quite soon, but wakes up after a couple of hours or less, unable to get to sleep again. This is sometimes due to an over-secretion of acid in the stomach, and the taking of an alkali will allow sleep to come. Suitable alkalis are bicarbonate of

soda (from a half to a full teaspoon in water), milk of magnesia, or one of the various alkaline stomach powders.

It is better not to make a conscious effort to go to sleep; the counting of imaginary sheep only tires an already tired brain. Go to bed with the mind rested by some pleasant form of recreation, and trust Dame Nature to do the rest.

There may be cases where an intractable insomnia is wearing a person out and unfitting him for his work and the use of some drug to produce sleep becomes necessary.

It is not within the scope of this book to name suitable sleeping drugs: a doctor must be consulted. Needless to say, none of these drugs should be taken without doctor's orders.

### JAUNDICE

This is a term used to describe the condition in which the skin and the whites of the eyes are yellow by reason of the presence of bile in the blood. The causes are any obstruction of the entry of the bile from the gall-bladder to the bowel: the bile is then absorbed into the bloodstream.

Jaundice may be **catarrhal**, when the small bile-ducts are inflamed and thus impervious to flow: this type of jaundice is often epidemic.

Or jaundice may be **obstructive**, as in closure of the bile-duct by a stone.

**Treatment** is according to the cause.

For catarrhal jaundice, rest in bed, hot applications or a mustard poultice to the liver (*i.e.*, the lower ribs on the right-hand side), avoidance of oily and starchy foods, and gentle aperients. Patients with jaundice of this type catch cold easily.

For obstructive jaundice the cure is the removal of the obstruction. The stone may pass naturally, when the jaundice will get better; if the stone is too big to pass, it should be removed by operation.

See also **Colic**, p. 118.



## LARYNGITIS

An inflammation of the larynx or "voice box", usually catarrhal.

The signs are pain in the throat with dry cough, and a squeaky or whispering voice.

**Treatment.** Inhalation of steam is useful (with or without a few crystals of menthol or a few drops of Friar's Balsam in the boiling water); expectorants such as ipecacuanha wine may be given (five drops to the dose); the voice must be rested; and cold-water compresses or warm poultices of kaolin may be applied to the front of the throat. The patient should remain in a room at an even, warm temperature.

## LUMBAGO

A painful rheumatic affection of the back muscles.  
See Fibrositis, p. 141.

## MASTOID

The mastoid is the bony prominence behind the ear, and the word is used in popular speech to mean inflammation or abscess in this bone. Inflammation of the mastoid is a not infrequent sequel of inflammation in the middle ear, and is a serious condition. After the usual symptoms of middle ear disease or catarrh have shown themselves for a time—from a few hours to several days—pain and tenderness may develop in the mastoid, possibly with some swelling over the bone. Temperature is high; there may be vomiting and delirium, and the child is obviously ill. A surgeon should be called in at once, for though many cases subside under the use of penicillin and the sulpha drugs, some require operation.

The result of the operation is usually very good; and parents are often surprised that there is no deafness.

Indeed, a great many cases recover after operation without any impairment of hearing at all.

See also under Deafness, p. 126.

## MEASLES

A common infectious disease of childhood, though adults are not exempt. The reason for the greater frequency of this and other infectious diseases in childhood is that most grown-up people have already had these ailments, and have thus acquired a degree of protection or immunity: apart from this, however, adults are not so susceptible to the common infectious diseases as are children.

The story of a case of measles is much as follows:—

(1) The child feels ill and seems to have a cold; is feverish and has a dry cough. This continues for from three to five days, and then

(2) The spots begin to appear, and the eyes are red and watery. The spots are of a dusky colour, appearing first as small, flat, red spots grouped in clusters of half-moon shape. They come first on neck and face, especially below the ears; but within a day or two they are to be seen on face, limbs, and body, and often very profuse on the back. The cough is hard and painful; sometimes almost incessant. The face looks flushed and swollen. The temperature is high— $103^{\circ}$  or up to  $105^{\circ}$  F.—and the child appears to be very ill.

(3) After another two or three days the spots are fading; the temperature falls, the cough is looser, and the child is evidently getting better.

**Treatment.** Put the child to bed in a warm room. Cover light windows and shade lamps, to protect the eyes from glare. Allow fresh air, but not draughts. Give no solid food until the spots are fading, but feed on plenty of hot drinks, such as barley-water flavoured with lemon, or sweetened orange-juice and water. Milk



and water, or milk and barley-water, may be given if liked; but it is not wise to force milk on a sick child.

For medicine a simple cooling mixture may be given.

The child may be sponged down with warm water during the feverish stage; taking a limb at a time and avoiding cold.

It is wise to keep in bed until the spots have faded; then up in the bedroom at first, and out-of-doors when all spots have gone and cough has cleared up.

Measles takes about fourteen days to develop after exposure to infection; but infectiousness soon ceases after the temperature has fallen and the spots have gone. It is a rule, however, to maintain isolation from other children until three weeks from the first sign of illness.

A child may be inoculated after contact, and the attack thus made milder.

## MIGRAINE

See under Headache, p. 162.

## MOLES AND NÆVI

Moles are pigmented spots on the skin, dark brown in colour: nævi are knots of little blood-vessels, and appear as red or purplish stains raised above the surface of the skin.

Many people think it lucky to have a mole: that, of course, is no more than a superstition. However, unless unsightly, or in a place where they may easily be rubbed or scratched, moles may be left alone. If enlarging or liable to be inflamed, or if for any other reason it is decided to get rid of them, this may be done either with the electric needle or with the carbon dioxide snow.

**Treatment.** Nævi should be removed: they are apt to get rubbed and to bleed; and they often increase in size. Their removal in infancy is not a serious matter: most of them can be treated with the carbon dioxide

snow, which leaves only a faint pink mark: excision, or removal with the knife, is safe and certain.

## MUMPS

Mumps is an infectious disease, seen mostly in childhood, but also occasionally in adult life.

The signs are a swelling in front of and below the ear, extending on to the cheek. This swelling may be on one or both sides, but usually on one side first, followed in two or three days by the other: it is due to an inflammation of the salivary glands (the glands which supply the moisture or saliva to the mouth).

The swelling is tender, and is accompanied by pain: the pain is worse on moving the jaw or eating, and is evoked by the sight and smell of food. In some cases there is no feeling of illness; in others there is a rise of temperature with general malaise. The swelling subsides in about a week.

Mumps may be mistaken for enlarged lymph-glands: the pain on opening the mouth, or at the sight of food, and the extension of the swelling on to the cheek, would suggest mumps; also the fact that the swelling appears first on one side, and then after a few days on the other. Swollen lymph-glands are usually below the line of the jaw, and behind its angle. They are often associated with some focus of infection, such as sores on the head or ear, or inflammation of the tonsil.

**Treatment.** Keep the patient in bed until swelling has gone down. This may seem a severe rule; but in boys and men an inflammation of the testicle, or in girls of the ovary, is a not uncommon complication, and for this reason rest in bed is a wise precaution.

Light diet, attention to the bowels, and warm applications to the swelling, are other points in treatment.

Mumps is a very infectious complaint, particularly at the onset, when the swelling is beginning. A child in contact with mumps should be kept from school for



three weeks; and a child recovering from mumps should be kept away from others for a week after all swelling has gone.

### NAILS, BRITTLENESS OF

Brittleness of the nails may simply be a sign of anæmia and a poor state of health, or it may be an evidence of a deficiency of calcium salts in the blood, or of Vitamins.

Treatment, therefore, is in giving iron and cod-liver oil, and plenty of calcium-containing foods—such as spinach and other greens, oatmeal, and particularly milk.

Olive oil or a similar oil should be applied to the nails at night.

See also Ingrowing Toe-Nail, p. 171.

### NETTLE-RASH

See Urticaria, p. 210.

### NEURALGIA

Neuralgia, or nerve pain, may vary from a mere twinge to an unendurable agony. It occurs in run-down states of health and affects various nerves; neuralgia in the face is the most common.

The pain may come on without obvious cause; but decayed teeth or an unerupted wisdom tooth may be discovered as answerable.

Treatment is first to relieve pain: this may be done by the application of warmth, and the administration of some pain-relieving substance such as aspirin or phenacetin or quinine.

At the same time the general health must receive attention; aperients may be required, and tonics such as iron and quinine or the compound syrup of the hypophosphites may be given.

Nerve foods such as Sanatogen are useful.

## NEURASTHENIA

This may be described as a state of tiredness of mind and body. It is a nervous debility, shown by worry over trifles, imaginary ailments, and an inability to concentrate. Complete change of scene is the best line of treatment, with rest for mind and body, and plenty of good food.

## NEURITIS

The word means inflammation of a nerve. Such inflammation may follow injury or exposure to cold; or it may be associated with rheumatism or the presence of septic teeth, or with a poor state of general health. Too free indulgence in alcohol over a long period, or the absence of vitamin-B from the diet, may also be responsible for neuritis in certain cases.

The signs of neuritis are "pins and needles" in the affected nerve, with perhaps pain and numbness.

Treatment is by rest and warmth, and the treatment or removal of the cause if a cause can be found.

Vitamin-B may be given, either in tablet form or in foods, of which the richest are cereals and the preparations known as Marmite and Bemax.

## NOSE-BLEEDING

See Epistaxis, p. 138.

## OBESITY

See Slimming, p. 198.

## PARASITES

Even the most cleanly of people may be attacked at times by one or other of the common parasites, lice and fleas in particular.



Lice commonly affect the hairy scalp in children; the egg-cases are seen as small, whitish objects sticking to the hairs.

**Treatment.** To rid the head of lice, the hair should be combed twice daily with a comb dipped in warm vinegar and water, and the hair and scalp washed daily with carbolic soap.

Fleas are troublesome because of the intense itching produced by their bites, and also by reason of their capacity for jumping from place to place. If troubled by a flea which cannot be seen, a good plan is to undress in a bath: the flea is almost certain to jump into the water.

Fleas dislike sulphur; and if likely to be where fleas abound, a little sulphur may be dusted in the clothing, or a sulphur tablet may be eaten on the supposition that this may flavour the skin.

## PERSPIRATION

Perspiration is a necessary part of the body's activities; yet excessive perspiration is a trouble to many people. It may take the form of a general perspiration on the slightest exertion, or more commonly a clamminess of hands and feet.

It is often associated with constipation, or with a delay in passing material through the bowel; therefore make sure of a daily evacuation.

**Treatment.** Feet should be soaked twice daily in a mild disinfectant solution, such as Dettol (a teaspoonful to the pint of water) or the weak tincture of iodine (a teaspoonful to the pint). After soaking, the feet should be dried, and then well powdered with an antiseptic dusting-powder.

## PHARYNGITIS

This is a state of sore throat, affecting the whole of the back of the throat, and not merely the tonsils. There

is a feeling of dryness in the throat, with pain on swallowing; the whole arch of the throat looks reddened.

**Treatment.** Inhalation of steam gives relief; or two or three small crystals of menthol, or a few drops of Friar's balsam may be put in a quart jug half-filled with boiling water, and the fumes inhaled two or three times daily for five minutes.

Gargling with aspirin in hot water (ten grains to the wineglass) is comforting.

In chronic forms of pharyngitis, such as clergyman's sore throat, rest for the voice is essential; and, as recovery takes place, exercises in breathing and voice production are valuable in preventing recurrence.

## PILES

Piles, also known as hæmorrhoids, are dilated veins around the opening of the bowel (the anus). They may be internal or external.

External piles are felt as little lumps which itch, and which are apt to become hard and inflamed.

Internal piles occur inside the bowel, but after evacuation they may prolapse and be visible externally as soft swellings, which can usually be pushed back by the finger.

Internal piles are apt to bleed, and when inflamed they cause a discharge which may be blood-stained. They also cause a desire to evacuate the bowel, and the congestion caused by attempts to do so aggravates the condition.

**Treatment** is first in correcting constipation, which is almost always a forerunner. For this, liquid paraffin is very suitable; it produces a soft mass without griping.

Scrupulous cleanliness is another part of treatment; the usual toilet paper should be discarded, and warm water with cotton-wool used instead. A little Dettol may be added to the water. If the piles prolapse, they



may be smeared with a suitable ointment or with "Vaseline" Petroleum Jelly and gently pressed back within the bowel.

If difficulty is found in replacing them, it is good to try gentle sponging with hot water and a pad of cotton wool, followed by pressure with a pad of cotton-wool wrung out of cold water.

Of the various pile ointments, the ointment of galls and opium is an old favourite: witch-hazel ointment is also useful; or an ointment containing a very small proportion of suprarenal extract, which shrinks the small blood-vessels.

Pile ointments are sold in collapsible tubes, sometimes with a metal nozzle. In inserting the nozzle, be careful not to tear the inflamed piles, and so cause bleeding; as a rule it is quite satisfactory to smear the ointment on the piles, and insert a little within the bowel with the tip of the little finger.

Piles which cause distress by pain or itching, or which are leading to ill-health by bleeding, and which do not respond to ordinary treatment, may be suitable for surgical treatment either by injection or by removal. On this the advice of a surgeon should be sought.

## PLEURISY

Pleurisy is an inflammation of the smooth lining (the pleura) which covers the lungs and the inside of the chest wall. If this smooth lining is inflamed and roughened, even over a very small patch of its surface, the movement of expansion of the lung as the chest-wall moves will give rise to a sharp pain as the roughened surfaces rub together.

Pleurisy is caused by chills and exposure to cold or cold winds and wet. In most cases a moderate attack of pleurisy subsides gradually: but in some cases the inflamed pleura pours out a fluid which collects between lung and chest-wall. This is known as pleurisy with effusion, as distinguished from dry pleurisy.

**Treatment.** The patient must go to bed. A hot drink, with two tablets of aspirin compound with Dover's powder should be given : and a mustard poultice applied to the painful part of the chest, or a kaolin poultice may be used. (See p. 68.)

A mixture suitable for febrile complaints should be given: aspirin may be given to relieve pain.

If fluid forms, paint the skin of the affected side daily with the weak tincture of iodine; this promotes its absorption: if fluid fails to become absorbed, the small operation known as aspiration—removal of the fluid by means of a hollow needle and a suction apparatus—may be found necessary, but on this the advice of the doctor in charge of the case must be taken.

Pleurisy should never be treated as unimportant; and when the attack is over, the general health must be built up, such things as cod-liver oil and malt extract, or the cod-liver oil emulsion, being of special value in view of the occasional connection of pleurisy with tuberculosis: such things must, of course, be combined with fresh air and plenty of good food.

## PNEUMONIA

(Also called Inflammation of the Lungs)

An acute disease, in which a portion of lung is solid by reason of an inflammation in the small air-cells which form the endings of the finest tubes.

The causes are chill and exposure (such as getting wet through on a wintry evening), and shock (such as falling into a river).

The disease is due to a definite microbe or group of microbes; and the lowering of vitality which follows shock and exposure to cold may be sufficient to allow of their development in the system.

The onset is sudden. Chilliness, shivering, tightness of the chest, pain referred to the affected part, and a general feeling of illness.



The temperature rises rapidly; there is a hard, painful cough, with expectoration of frothy and rusty-coloured sputum. The temperature remains high—maybe from  $102^{\circ}$  to  $104^{\circ}$  F.—for five or seven days; and then falls suddenly (crisis) with a feeling of relief and exhaustion. During the time of high temperature delirium is not uncommon. In many cases a crop of small, watery spots appears on the lips (herpes); this is regarded as a favourable sign.

**Treatment.** The patient must go to bed at once, and remain there, preferably propped up with pillows. Fresh air is important, so the windows may be open, but the patient should be shielded from direct draught: the temperature of the room should be from  $60^{\circ}$  to  $65^{\circ}$  F.

A kaolin poultice should be applied to the affected side; renewed every twenty-four hours with as little disturbance as possible.

Diet must be fluid; all drinks should be warm, and nothing given cold: beef-tea, any of the meat-extract drinks, barley-water flavoured with lemon and well sweetened with glucose or sugar. Milk should not be insisted on if the patient objects; many find that milk produces a coated tongue and a feeling of heaviness, for feverish patients do not always digest milk well.

Peptonised milk is better than raw milk; but beef-tea and glucose drinks are the most important. Sections of orange may be given to suck if the patient is not delirious.

Alcohol may be of value (a tablespoonful of brandy in sweetened water every four or six hours), especially when the patient finds difficulty in taking sufficient of the food-drinks. The concentrated foods, such as chicken essence and beef juice, are also useful.

Skilled nursing attention is of the greatest importance in pneumonia. The patient should be kept quiet, and disturbed as little as possible. A sleeveless jacket of Gamgee tissue (cotton-wool between layers of gauze) is a useful protection for the chest. Though actual medicines are of less importance than skilled nursing,

*a doctor should see every case of pneumonia*, for the heart must be watched, and symptoms such as cough and sleeplessness must be treated.

After the crisis the patient feels well but weak: he should remain in bed for a full week after the temperature has fallen to normal.

There is no doubt that in the last few years the outlook in pneumonia has been altered by the introduction of what are known as the anti-biotic drugs: such should be administered under the direction of a doctor.

## POISONING

The effective treatment of poisoning depends on the kind of poison swallowed; but a good general rule is to give an emetic—something to make the patient vomit—and to give it as quickly as possible.

Common emetics are salt water—a tablespoonful of common salt in half a pint of lukewarm water, the patient to drink this amount or more; or mustard and water. Vomiting may be produced by tickling the back of the throat.

Exceptions to this rule are:—

(1) When the patient is unconscious; in which case the swallowing of an emetic is impossible, and medical aid must be sought for the washing out of the stomach with rubber tube and funnel.

(2) When corrosive substances, such as strong acids, have been taken; in which case the acid should be neutralised by giving an alkali such as chalk or magnesia or bicarbonate of soda or alkaline stomach powder, two teaspoonfuls to the half pint.

Corrosive alkalis, such as caustic soda or strong ammonia, should be neutralised by giving vinegar and water.

In poisoning by carbolic acid give Epsom salts; this forms a harmless compound with the acid.



Poisoning by foods, such as tainted meat or fish, or mussels or mushrooms, should be treated by emetic and then by a good dose of castor oil to clear the bowel.

The general treatment of the shock and collapse following poisoning is by rest and warmth, and the giving of warm, stimulating drinks such as coffee or milk or beef-tea; or, if swallowing is not possible, then fluids such as beef-tea, or glucose and water, or "normal saline"—a teaspoonful of salt in a pint of warm water—may be given into the bowel with a rubber tube.

### PSITTACOSIS

This uncommon disease is mentioned because a few cases have appeared during recent years, and it has had a certain prominence in the public eye.

It is a disease caught from birds of the parrot tribe, and occurs therefore in people who handle these birds (parrots and budgerigars).

The disease is not unlike a severe influenza, for which it might be mistaken.

Great care should be taken in handling, and especially fondling, birds of these kinds kept as pets; the disease may prove fatal.

### PSORIASIS

An intractable skin disease recognised by its silvery, scaly patches. It is often hereditary.

The patches may occur on almost any part, but they follow places where clothing presses, and are frequent on the arms.

**Treatment.** There is no ointment which can be said to "cure" psoriasis, though many applications alleviate it. A zinc ointment with tar (twenty minims of the liquor picis carbonis to the ounce) is useful.

The patches disappear under the action of sunlight;

and many people find that they are free from psoriasis when they have the opportunity to sun-bathe. In the absence of natural sunshine, the "artificial sunshine"—ultra-violet light—may be tried.

## PULSE

The pulse is the rhythmic beat in the arteries as the heart forces the blood along them.

The pulse is usually counted or "taken" at the wrist, where the radial artery lies close under the skin on the "thumb" or outer side of the front of the arm: it may also be felt in the facial artery as it comes over the edge of the lower jaw about two finger-breadths in front of the angle. (This is valuable where both arms are covered with bandages, as in cases of burns.) Other places where the pulse may be felt are at the temple (the temporal artery, on the side of the face just in front of the upper part of the ear); on the top of the instep; and at the inner side of the ankle below the tip of the tibia (the larger bone of the leg).

The average rate of the pulse in health is seventy-two beats to the minute, but it varies a little in individuals.

In "taking" the pulse, it is necessary to observe its volume, and not only its rate. Thus we speak of a full and bounding pulse, or a thready pulse; and these differences are important. The pulse-rate is increased—in other words, the pulse is quickened—by excitement, emotion, and exercise, and in feverish conditions. A state of quickness of the pulse, indicating rapidity of the heart's action, is a feature of some conditions of ill-health; notably exophthalmic goitre, and the debilitated condition of the heart-muscle which may follow certain illnesses such as influenza.

The pulse is slower than the normal as a natural feature in some individuals: it is also seen in fainting, and in certain forms of heart disease.



## PYORRHŒA

A disease of teeth and their sockets, characterised by oozing of matter around the affected tooth, with some inflammation of the gum.

An X-ray picture shows the tooth loose in its socket, and often some absorption of the root, around which there may also be an abscess.

**Treatment.** Pyorrhœa is a very common condition, and difficult to cure because the trouble is mostly out of the reach of tooth-pastes and lotions.

In many cases the only possible cure is extraction of the affected tooth or teeth. Penicillin may be of service, either by injection or in the form of chewing gum or lozenge.

This is necessary because there is no other way of getting rid of the microbes which cause the condition; and because, if left, pyorrhœa is likely to be the forerunner of various sorts of ill-health, notably rheumatism and diseases of the eye.

**Care of the Teeth.**

If the proper food and sufficient lime salts have been supplied in childhood, and if attention has been paid to any small tooth-troubles which may have arisen, then young people have a good prospect of possessing a sound set of teeth when they reach grown-up years.

In childhood the use of the toothbrush night and morning, with a mild disinfectant tooth-paste or powder, must be made a habit. Food, and especially sweet food, must not be left between the teeth, and to ensure this the teeth must be brushed not only from side to side, but also up and down.

Food must not be too soft or pulpy: there must be plenty of things in the diet which require chewing. The teeth are stronger and healthier for having work to do.

Teeth are often crowded; and many children in their teens are the better for the removal of four of the molar teeth. This makes room for the wisdom teeth to come through at their proper time and without trouble.

### QUINSY

See Tonsils, p. 206.

### RASHES AND SPOTS

Common conditions in which rashes and spots may be seen are:—

Measles,  
German Measles (Rubella),  
Scarlet Fever,  
Chicken-pox.

All these are definite illnesses.

Other rashes apart from definite illness are:—

Urticaria or Nettle Rash,  
Impetigo,  
Herpes.

#### In Measles.

Small flat red spots, of dusky colour, in groups of half-moon shape. Usually plentiful. Appear first on neck and face, then on body. (See p. 175.)

#### In German Measles.

Smaller spots than in measles, closely set, appearing first on face. Spots may be seen on roof of mouth. Glands at back of neck enlarged. (See p. 155.)

#### In Scarlet Fever.

Fine red rash on body and limbs: not on face. Area of pallor around the mouth. Throat sore. Tongue of "strawberry" appearance. (See p. 195.)



**In Chicken-pox.**

Small raised pimples, developing a watery head. Scattered; appearing first on front of body. Becoming widespread, even among the hair of the head and inside the mouth. Dry up and leave dark scabs. (See p. 114.)

**In Urticaria.**

Raised patches and wheals, of whitish colour edged with pink. Itching. New patches may be brought out by scratching. Usually history of something eaten. Temperature not often raised. (See p. 210.)

**In Impetigo.**

Sores and crusts especially on the face. (See p. 167.)

**In Herpes.**

Small watery heads following the course of a nerve. Never very widespread. Seen mostly on face and along the line of a rib (shingles). (See p. 165.)

**RETENTION OF URINE**

The chief causes of retention of urine, or inability to pass the water, are (1) nervous influences, and (2) some obstruction.

**Nervous Influences.**

Some people find it not easy to pass water if they are in a hurry or if other people are present. This happens to railway travellers who have only a minute or two in which to catch their train. The turning on of a tap to produce the sound of running water is often a help. Another instance in which nervous influences play a part is in the inability to pass water after an operation. A hot fomentation between the legs or to the front of the body will help; or change of position if this is allowed, such as rolling on to the side, or sitting up.

## Obstruction.

Obstruction to the flow of water may be because of a narrowing of the pipe or urethra as a result of old inflammation, or by an enlargement of the prostate gland which lies at the base of the bladder, and which is frequently enlarged in elderly men. Sitting in a bath of hot water, and endeavouring to pass water then and there, is often effective. In some cases it is necessary to use a catheter—a small, round-ended rubber tube passed slowly and gently along the water-pipe (or urethra). The use of a catheter should be avoided if possible, owing to the risk of infecting the bladder.

Before using a catheter the orifice of the urethra must be carefully cleansed with cotton-wool and a disinfectant (such as a solution of Dettol), and the catheter itself must be sterilised by boiling, or by soaking for half an hour in a disinfecting solution: it must then be lubricated with carbolic oil.

## RHEUMATISM

Rheumatism is a painful affection of joints, fibrous tissue, and muscle. It varies in severity from the mere twinge of pain on movement of joint or muscle, to a condition of universal joint pains and swellings accompanied by high fever (rheumatic fever); or from a mere passing stiffness to a state of complete crippling. Rheumatism is one of the commonest of diseases, and therefore one of the most important.

**Cause.** Though rheumatism is brought on by cold and damp, the real cause is a micro-organism; and this particular type of organism is found in connection with diseased teeth and tonsils, and in the large bowel.

**Treatment.** A hot bath, with a tablespoonful of washing soda in the water, is a good beginning; then a dose of opening medicine, and a warm bed in a warm room. At the same time a mixture containing ten grains of the salicylate of soda to the dose, may be given every four hours; and the affected parts rubbed with a winter-



green liniment. The analgesic balsam of wintergreen and menthol is useful; it is sold in collapsible tubes.

Diet must contain no meat: milk and milky foods are allowed, and barley-water may be taken *ad lib.*, as it assists the working of the kidneys. The lesser degrees of rheumatism will generally yield to a treatment of this kind.

### Recurrent Rheumatism.

The person who is subject to recurrent attacks should seek for a possible cause. Damp houses and damp beds; the wearing of wet shoes after showers of rain or after walking through snow; the neglect to change damp clothing—these are possible causes. And there may be constitutional causes in the patient, such as unhealthy teeth or tonsils, or a sluggish action of the large bowel. Any of these causes, if discovered, should be remedied.

Rheumatic subjects should live on dry ground, preferable on gravelly soil, and in places where the water is not too hard. They should take plenty of vegetable food, but be sparing of meat.

The bowels should be kept open by small doses of salines: many different kinds of these are sold; Glauber salts is a favourite, though some of the mixed salines which imitate the properties of the waters of various spas may be more effective. There are various spas or health resorts to which the rheumatic sufferer may go for treatment; the best known in Britain are Buxton and Bath, though several others might be mentioned.

### Rheumatoid Arthritis.

This is a painful and crippling form of chronic rheumatism affecting joints. The smooth joint surfaces become roughened; movements are stiff and painful, especially after resting, and one or more joints may eventually become fixed.

In rheumatoid arthritis the general health is of great importance: cod-liver oil and iron should be given for the debility and anæmia which are often a feature.

### Vaccine Treatment of Rheumatism.

Persons subject to recurrent attacks may have an anti-rheumatic vaccine injected in increasing doses at intervals of from five to ten days. The object is to increase the body's fighting power against the organism (streptococcus) which causes rheumatism. This treatment should only be given on the advice of a physician.

### Electrical Treatment.

Several forms of electrical treatment are used in rheumatism; the chief are radiant heat (the infra-red rays) and diathermy. Massage is also used for the relief of stiffness.

## RICKETS

Rickets is a disease of infancy and young childhood in which the bones are soft. The signs are enlargement of the wrists, small swellings on the ribs near the breast-bone ("beading" of ribs), paleness of skin, and sweating of the head. If not treated, the results are bending of the leg-bones and deformity of the chest (pigeon breast).

Rickets is much less frequently seen since the improvements in infant feeding and in child care generally, and since the recognition of the value of sunlight, and the discovery of vitamin-D which prevents rickets.

The prevention therefore lies in proper feeding, with an ample supply of calcium for the growing bones; at the same time a sufficiency of vitamin-D, and plenty of fresh air and sunshine. The chief sources of vitamin-D are cod-liver oil and halibut-liver oil; and either of these may be given daily to a bottle-fed infant—cod-liver oil one teaspoonful, or halibut-liver oil three drops, daily.



When signs of rickets are seen, such as softness and beading of the bones, the child should not be allowed to walk for fear of deformity; he should have cod-liver oil, and a generous diet—oatmeal or groats, fish, eggs, fruit, greens, wholemeal bread, rusks, with at least a pint of fresh milk daily.

Sunshine is of great value; and if the time of year does not allow of natural sunshine, the artificial sunshine—ultra-violet light—should be used.

## RINGWORM

A skin disease of childhood, due to a vegetable fungus. It is characterised by scaly patches on the scalp from which the hair is falling, and broken hairs may be seen.

The hairs should be examined under the microscope to make the diagnosis certain.

**Treatment** consists in the repeated application of disinfectant ointments of sufficient strength to kill the fungus.

Useful ointments are those of sulphur, or iodine, or the nitrate of mercury. Painting with tincture of iodine is sometimes employed. But whatever the treatment, it must be persevered with for a long time; and watch must be kept for the irritation and soreness which these ointments may produce.

The X-rays offer a certain cure, but there is just the very slight risk of a lasting baldness.

## RUPTURE

See Hernia, p. 164.

## SCABIES

Also called "the itch". Caused by a small animal parasite, the *Acarus*, which burrows into the skin and causes intense irritation especially at night. Usual

sites for the burrows are between the fingers and on the backs of the hands, and in folds such as the elbow and armpit.

It is not easy to say whether a case is one of scabies or not, as the burrow containing the *acarus* is soon disguised by scratching. It may be possible to see a burrow as a thin line on the skin, with a tiny bead at one end; also the itching at night is fairly characteristic.

**Treatment.** Plentiful baths with a disinfecting soap, and rubbing the affected parts freely with sulphur ointment, should cure.

Clinics are now established for the diagnosis and treatment of scabies: thorough washing and thorough inunction—all over the body and limbs—with a parasite-killing emulsion may usually be relied on to effect a cure in a few days.

## SCARLET FEVER

In scarlet fever the spots take the form of a fine red rash, which may appear as a general blushing of the skin, seen on body and limbs, but not on the face.

In contrast to the general flush, the part around the mouth looks pale, and this is a characteristic appearance in scarlet fever.

The history of a case of scarlet fever is somewhat as follows.

The child is taken suddenly ill; feverish, and with headache and sore throat. There is often vomiting at the onset. Rash appears on the second day. Temperature is high and tongue furred; and by the second day the tongue begins to show a "strawberry" appearance. The tonsils are swollen and red. Acute illness lasts about a week, and the temperature falls gradually. In the second week "peeling" begins: this is first seen as a branny scaliness about the collar-bones; but as time passes flakes are shed from all parts of the body, and the process of peeling is not complete until about six weeks have passed from the commencement of the illness.



**Treatment.** Bed in a warm room; fluid diet; a cooling mixture. Sponging with warm water, a limb at a time, if temperature is above  $104^{\circ}$  F., or if there is delirium.

*Every case of scarlet fever should be seen by a doctor.*

The child must be kept in bed for three weeks, however quickly he may seem to recover from the acute stage: the reason is that until the end of that time there is always the possibility of complications developing, in the form of inflammation of the kidneys or an inflammation behind the drum of the ear.

The home nursing of scarlet fever is very difficult, and really the child is best off in a fever hospital. Special treatment may be necessary in the form of drugs and injections of serum, and penicillin.

The usual time to elapse between exposure to infection and commencement of illness is three to six days; and the child is regarded as infectious until all peeling has ceased.

## SCIATICA

An inflammation of the sciatic nerve or its sheath, usually due to rheumatism. Chills and damp, and sitting on cold seats such as stone, may be starting causes; sciatica is also frequently associated with unhealthy teeth.

The main symptom is pain in the hip and leg of the affected side: the pain is made worse by stretching out the leg. With hip and knee bent, the leg is in the position of least discomfort.

**Treatment.** In the acute stage rest in bed and the application of heat to the affected hip are the best lines of treatment as a beginning. Aspirin, phenacetin, and salicylate of soda are given to relieve pain. Various forms of electrical treatment are useful in sciatica; and spa treatment, or a visit to a warm, dry atmosphere may be of benefit.

## SEA-SICKNESS

The following hints may be useful to those who suffer from sea-sickness.

(1) Whatever sort of a sailor you are, commence your journey in the best possible health. Keep the bowels open, and avoid heavy meals and indigestible food; you will then have a clear head and a clean tongue for the start.

(2) If you are a bad sailor, and the journey is short—for example, cross-Channel—go and lie down: the motion of the ship will affect you less in that position.

(3) If the journey is a long one, it is best to keep about, and especially to keep in the air. The air at sea is cold, and it is easy to take a chill if you are feeling the effects of the movement of the ship. Put on a warm coat, and do not despise a rug about the knees if you are sitting still. Try occasionally to walk about; and do not watch the waves.

Even if feeling sick, take a little beef-tea, or milk-and-soda, or a cup of tea and a dry biscuit.

Be resolute about getting up in the morning; and remember that the early morning tea and biscuit served on ship-board is a valuable beginning for the day, and will help you on to your feet.

When well enough to go to the dining-saloon, keep at first to the plainer dishes: there is a temptation to take the tasty dishes, but the plain ones are better.

If constipated, take a cascara tablet at night, or a dose of an effervescing saline in the morning.

(4) Unless you are a very bad sailor, and the journey is a long one, it is as well to leave sea-sickness medicines alone.

The bromides and chloretone are the favourites, and many people take aspirin; but if you can get your sea-legs without recourse to medicines, so much the better. If it is necessary to take a sea-sickness mixture, bromide of soda, bicarbonate of soda, and carbonate of bismuth,



of each ten grains in a tablespoonful of peppermint water, repeated at intervals of four hours, may be found of service in rough weather.

(5) Take exercise. Long voyages may easily be lazy—and “livery”—so march the deck and play the ship’s games.

## SHINGLES

See Herpes, p. 165.

## SLIMMING

Some people are naturally fat; and stoutness is not incompatible with health. But an undue and unsightly gain in weight, and especially a deposit of fat about the hips and breasts, leads people to seek advice about “slimming”.

Obesity may be a family characteristic: it may be due to a wrong diet; or it may be an evidence of some condition of ill-health.

### 1. Obesity as a Family Characteristic.

Of this little need be said: rules of diet for slimming may be followed, but as in these cases the deposit of fat is usually well-spread and balanced, there is not likely to be much success in reducing what may only be a portly figure.

### 2. Obesity Due to Wrong Diet.

For a person in otherwise good health, the reduction of weight depends on diet. The fattening foods are sugar, sweets, pastries, starchy puddings, milk, cream, bread, and potatoes. In prescribing a diet, the question in the mind of the patient may very well be, “How can I take enough food to keep up my health and strength, and at the same time reduce my weight?”

The first rule is to eliminate from the diet, or reduce

the quantities of, all the articles named above as fattening foods. The exceptions are that skimmed milk may be taken with tea and coffee, and a small piece of bread, roughly the size of the palm of the hand and a third of an inch in thickness, may be taken at each of the two meals when bread is usually eaten, breakfast and tea-time.

The day should begin and end with the drinking of half a pint of water; this may be taken hot or cold, according to fancy.

The foods allowed are meat, eggs, and fish; green vegetables and salads; fruits, raw or stewed without sugar. These foods may be taken in sufficient quantity to cause a feeling of satisfaction.

Breakfast might consist of tea or coffee with skimmed milk, but without sugar (saccharin may be used for sweetening both in drinks and in cooking). Egg, lean ham, or fish; with a small piece of bread as indicated, or a square of one of the crisp-breads sold. Stewed fruit or an apple.

Midday meal: chop or cutlet without fat, steak or cut from a joint; spinach, cabbage, or other green vegetable; stewed fruit, and cheese with a water biscuit or a baton of one of the various non-fattening breads sold, and a scraping of butter.

Tea-time: China tea with lemon, or tea with skimmed milk and no sugar; small piece of bread or crisp-bread; lettuce and watercress.

Evening meal: fish or meat or eggs; green vegetables if desired, or grilled tomatoes; stewed fruit.

It need hardly be said that no chocolates or sweets should be taken, and no jam or honey, though a sugarless marmalade may be eaten with the breakfast bread if desired. And it may also be noted that whole-meal bread is better than white bread, very largely because of its action on the bowel.

To diet must be added exercise, especially walking: swimming is also valuable.



### 3. Obesity Due to Ill-Health.

The most important deviation from health which is accompanied by obesity is a deficiency of thyroid activity.

The thyroid is a gland in the neck which regulates the burning up of certain of the foods we take, and a deficiency in thyroid action may allow a storage of fat in our tissues.

In certain cases, therefore, thyroid will act in reducing weight; but it is a substance that should only be taken in suitable cases and under medical supervision. The indiscriminate taking of thyroid tablets for slimming cannot be too strongly condemned.

## SPRAIN

A sprain may be described as a wrench or strain of a joint not sufficient to cause dislocation. In a sprain some of the binding fibres of a joint may be torn and not merely stretched.

The immediate effect of a sprain is pain, often so severe as to cause a feeling of sickliness; swelling follows, and any attempt to use the sprained joint is painful.

Treatment is to apply cold compresses as quickly as possible, renewing them frequently: cover the compress with a bandage firmly applied, but not so firmly as to interfere with the circulation. Rest the joint until it can be moved without pain. Massage is of great service in sprains.

A common injury during exercise, such as running or tennis, is the tearing of a few fibres of a leg muscle. This causes immediate and severe pain; there is tenderness at the injured spot, and walking is painful.

Immediate rest for a few hours is necessary; but the treatment is to apply a firm supporting bandage over cotton-wool, and to begin to use the limb as soon as possible.

## STIFF-NECK

A painful rheumatic affection of the neck muscles.  
See Fibrositis, p. 141.

## STOMATITIS

A condition not infrequently seen in infancy is the form of stomatitis or inflammation of the mouth known as "thrush". In this, small white spots are seen on the tongue and the inside lining of the mouth. Often the child is out of sorts and is passing green stools.

**Treatment.** A favourite application is borax and honey, or the mouth may be swabbed out with boracic lotion. (This must not be continued for more than two or three days, because the baby is sure to swallow some of the borax or boracic, and this will cause indigestion.)

General health and condition must be attended to.

Make sure that the baby's food is suitable; boil the teat and bottle carefully after each feed; and do not give the child a "dummy".

## SUN-BATHING

Many people who go for summer holidays to the seaside make the mistake of exposing themselves too freely to the sun. They bask on the beach for hours at a time, and the result is that they get an overdose of sunshine, and instead of receiving benefit, they may actually do themselves harm.

Sunshine supplies both heat and light. The heat rays cause redness (sunburn); the light rays have a stimulating effect on the blood corpuscles, which come under their influence in their passage along the small blood-vessels in the part of the body surface exposed to the rays. To get the best of this stimulating action, exposure to direct sun should be graduated. A sun-bath of five minutes is enough for a beginner, or an exposure of



the legs only for from ten to twenty minutes: each day a slightly longer time may be given, or more of the body surface exposed to the sun.

Fair-skinned (fair-haired) people are more susceptible to the sun than are dark people. The browning that appears in the skin as a result of sun-bathing is a natural deposit of colouring matter in the skin, designed by nature to protect the body from harm by too deep penetration of the rays.

## SUNBURN

Prolonged exposure to the direct rays of the sun may cause a redness and smarting of the skin, followed by an itching and burning sensation and possibly even by blistering. This is sunburn.

To prevent it, avoid too long exposure.

To relieve it, the most comforting application is the calamine lotion, which may be dabbed on with a small knob of cotton-wool. Other soothing applications are the various lotions, ointments, and jellies containing witch-hazel. The last-named are sold in tubes and are convenient to carry.

All these preparations may be used as preventives of sunburn.

## SUNSTROKE

Though this condition is seen as a result of over-exposure to direct sunshine, it is more properly called heat-stroke, for the reason that it is an effect of heat, and may occur as a result of heat without sunshine—as in very hot rooms. The onset is sudden; the patient feels faint, with dizziness, headache, and vomiting. He may become unconscious, with flushed face and high temperature; indeed, in severe heat-stroke the temperature may be very high indeed.

Treatment is to remove the patient to a cool atmo-

sphere, and use means to reduce the temperature. Most effective is the application of ice or iced water to the head and neck, with cold sponging of the body and limbs. This should be continued until the temperature has fallen to within one or two degrees above the normal: the patient should then rest in bed in a darkened room, with a cool compress on the forehead. (Temperature should be taken by inserting the thermometer into the lower end of the bowel.)

See also chapter on Tropics, pp. 70, 71.

## SWELLINGS AND LUMPS

These are many and various, and may give rise to alarm in people's minds.

Some of the commoner swellings and lumps are as follows.

### I. Enlarged Lymph-glands.

These are frequently found in the neck, especially in children, due to absorption of poison from unhealthy tonsils or teeth. If a child has such lumps or glands in the neck a doctor should be consulted, owing to the possibility of tuberculosis.

Treatment is, of course, first to remove the cause if a cause can be found, and to build up the general health with good food, cod-liver oil, tonics, and fresh air.

Enlarged and tender glands may be found above the inner side of the elbow and in the armpit as a result of sores or septic wounds on fingers or other parts of hands or arms, and in the groin from similar causes on feet or legs.

Treatment. In such cases the cause must be treated—penicillin administered—matter (pus) from whitlow let out by incision if necessary, and sores dressed with antiseptics—and the skin over the gland-swellings painted with the weak tincture of iodine.



## 2. Ganglia.

A ganglion is a hard, tense—but not usually painful—swelling in the course of a tendon, commonly seen on the wrist or the back of the hand. It is due to an inflammation—maybe from strain or blow—which results in a collection of glairy fluid within a part of the sheath in which a tendon runs. A ganglion may give a sensation of weakness in the wrist, in addition to being unsightly. Sometimes it disappears; sometimes it can be “dispersed” by pressure; or if persistent it can be removed by a surgeon. Ganglia are harmless; they never lead to any serious consequences.

3. Such swellings as mumps, alveolar abscess, hernia, and sprains, will be found described under their own headings.

4. In any case of a swelling or lump that cannot readily be explained a doctor should be consulted.

Though most swellings and lumps are innocent and harmless, a lump where no lump should be must be seen by a doctor.

It is only by early recognition and prompt treatment that cancer can be conquered; and the patient who sees a doctor early enough will be cured.

## TEETH, CARE OF THE

See p. 188.

## TEETHING

Though an infant may dribble at the mouth and appear to be teething from the age of four months, the first teeth do not usually appear through the gum until the child is six or seven months old. The average order of appearance is as follows:—

6–8 months; the eight front teeth; usually the two central lower teeth appear first.

12 months; four molar or jaw teeth, two upper and two lower.

18 months; four canine or eye teeth, ditto.

2 years; four molar teeth, ditto.

These times are approximate; the eruption of each group of teeth may be spread over a number of weeks. Thus soon after the age of two the infant has twenty teeth; and no more are due to come through until six years old.

The troubles associated with teething are fretfulness, feverishness, loss of appetite, disturbed sleep, and even in some cases convulsions.

Teething is a natural process, and if the infant is properly fed and is otherwise in good health there is not likely to be much interference with progress.

It is important that the infant should have something hard to gnaw upon, such as a bone.

If the gums are tender and swollen, and the baby refuses its feed, and if it is fretful and restless at night, a powder of one grain of phenazonum (antipyrin) may be given at bedtime. But teething powders are not to be recommended for habitual use; they may give temporary relief from the discomforts of teething, but there is no powder that will make the teeth come through.

## TETANUS

A condition popularly known as lock-jaw, which occasionally develops after wounds contaminated with dirt—especially from roads and cultivated fields—which contains the tetanus bacillus. The tetanus bacillus does not like air; it is more likely to grow, therefore, in deeply lacerated or punctured wounds. From the wound, the bacilli and their poisons make their way through the lymph channels to their favourite haunts, the brain and spinal cord, where they set up an inflammation of nerves.



The usual history is that a few days after the infliction of a wound the injured person complains of a little stiffness of the neck, or a feeling of stiffness in the muscles that move the jaw. These symptoms should never be neglected: people will say "my neck is stiff; I must have been in a draught"; but the occurrence of a wound a few days or even a week or two previously, is an urgent sign that a doctor should be consulted.

In all wounds soiled with road or field or garden dirt a dose of anti-tetanus serum should be given immediately or as soon as possible. The dose may be repeated at intervals of a week until three doses have been given. This, of course, should be under the supervision of doctor or hospital. By this means the prevention of tetanus is fairly certain.

## THRUSH

See Stomatitis, p. 201.

## TONSILS

The tonsils serve a useful purpose in the throat; they are there to catch the germs of infection.

In Tonsillitis (inflammation of the tonsils), if the mouth be held widely open the tonsils may be seen to be swollen and reddened: there may also be small white or yellowish spots on their surfaces, marking an exudation from the inflamed pits or "crypts" of the tonsils.

Tonsillitis may occur as a simple "sore throat", or it may be part of a general "cold" or influenzal attack.

Treatment would be the general treatment of a cold (see p. 116), with gargles as a soothing and disinfecting local application. Useful gargles are the weak tincture of iodine, five drops in a wineglass of hot water; or two tablets of aspirin (ten grains) in the same amount of hot water; or the compound glycerine of thymol, a teaspoonful to the same amount. Gargles during the acute attack should be used hot, and frequently.

It is quite likely that in acute tonsillitis the lymphatic glands in the neck will be tender and swollen, particularly those below the angle of the jaw. In this case, keep the neck wrapped with a wool or silk muffler, and if the tenderness and enlargement are at all severe, apply a kaolin poultice and leave it on for twenty-four hours, keeping the patient in a warm room meanwhile.

Alarm may be caused by the appearance of white or yellowish spots on the inflamed tonsils. This is known as follicular tonsillitis, and it may be confused with diphtheria.

In diphtheria, however, the spots of greyish-white or yellowish-white membrane are likely to appear on the palate and walls of the throat as well as on the tonsils. Only a microscopic examination can decide in doubtful cases, and for this reason a doctor should be called to see any case of severe tonsillitis.

### Quinsy.

In quinsy, the tonsillitis, instead of subsiding under treatment, goes on to the formation of abscess, and matter (pus) forms between the tonsil and its bed. A tender and painful swelling is seen above and around the inflamed tonsil; and swallowing may be almost impossible. The swelling extends towards the roof of the mouth.

**Treatment.** If the patient can gargle, let him do so frequently with one of the gargles named above: the aspirin gargle is the most soothing. Inhaling steam from a jug partly filled with boiling water, with a few drops of Friar's balsam added, is useful and comforting. The administration of penicillin may prevent the formation of abscess.

A quinsy bursts, as a rule, above the tonsil. It is sometimes necessary to open the abscess with a knife-blade wrapped with adhesive plaster to within a quarter of an inch of its tip: the puncture is made half-way between the uvula and the last molar tooth.



The patient who is recovering from quinsy will require a tonic, and an iron and quinine mixture is useful.

### Should Tonsils be Removed

A mere enlargement of the tonsils in childhood is not in itself a sufficient justification for removal. Tonsils in children are relatively larger than in adults.

Indications for removal are:—

(1) If the enlargement is such as to cause interference with speech or swallowing.

(2) If the enlargement is associated with adenoids.

(3) If the tonsils are found to be harbouring disease germs, such as the hæmolytic streptococcus, which are a danger to health.

(4) If there are repeated attacks of tonsillitis, which still persist in spite of treatment with gargles or an iodine throat paint (Mandl's paint).

(5) If there are repeated quinsies.

Tonsils are given to us for a useful purpose: they play a part in a child's development; and they should only be removed after serious consideration and after expert advice.

### TOOTHACHE

See **Care of the Teeth**, p. 188.

As a means of relief in toothache, rinse the mouth with a solution of bicarbonate of soda (a teaspoonful in a teacup of warm water); and if there is a hollow tooth aching, place a small piece of cotton-wool soaked in oil of cloves in the cavity of the tooth, after removing any food particles.

### ULCER

An ulcer is an open sore which is slow to heal. The most familiar is the ulcer of the leg in cases of varicose veins, where the skin is weak and breaks down because of its poor circulation.

Leg ulcers may also be brought on by long standing, by injuries, and by scratching. A common form of irritation which may lead to the last-named is caused by sitting with the legs stretched out to the fire.

Ulcers may be due to pressure; an example is the bed-sore. Leg ulcers are most frequently seen above the ankle, where the tissues over the bone are thin: such ulcers are often very painful.

**Treatment.** If varicose veins are present they must be supported. Give some rest to the leg at intervals during the day.

Various ointments may be used as dressings: examples are zinc ointment, or Lassar's paste, with or without twenty minims of the liquor picis carbonis (solution of tar) to each ounce, or a zinc and calamine ointment. Ointments should be spread on lint (on the "cloth", not the fluffy, side) and supported by bandaging.

A more modern and very successful treatment is to apply an adhesive bandage directly over the ulcer, changing it once a week. Indolent ulcers may be stimulated by a dressing of red lotion. This contains sulphate of zinc, two grains to the ounce: a piece of lint, cut to the size and shape of the ulcer, should be moistened with the lotion and applied; changed every day.

Cure of the varicose veins improves the circulation in the affected skin, and allows healing to take place.

A persistent ulcer which refuses to heal often yields to treatment accompanied by some weeks' rest in bed.

### Bed-Sore.

The best treatment of bed-sore is prevention. The skin over such parts as are subject to pressure—shoulder-blades, back and spine, heels—should be hardened by daily application of methylated spirit (or surgical spirit) and well dusted with a smooth antiseptic powder.

All creases in the bed must be carefully smoothed, and no crumbs must be allowed to gather. If the nature



of the illness allows, the patient's position should be changed now and again so that the pressure is not for too long over one spot.

An air-cushion or a water-bed is a wise precaution in the case of those who must lie for a long time helpless.

If a bed-sore forms, the avoidance of pressure is all the more important. Keep the sore clean by dabbing with cotton-wool and a mild antiseptic lotion (Dettol or Milton), and dress with a zinc ointment, or an ointment of boracic and calamine (fifteen grains of each to an ounce of Vaseline). Zinc oxide and castor oil is a favourite home ointment.

## URTICARIA

Also known as nettle-rash. It is an itching eruption on the skin, occurring in patches and wheals. Some people are liable to repeated attacks.

Urticaria is usually caused by some substance taken in, which acts as a poison to the individual. Among such things are shell-fish, sausages, tinned and potted foods: and urticaria may also occur after injections of serum in the prevention and treatment of disease.

Itching comes first; then the raised whitish wheals with pink edges come out, often very rapidly. More wheals may be produced by scratching the skin with the finger.

There is not usually any great feeling of illness or rise of temperature.

**Treatment:** (1) *Preventive.* Avoid such forms of food as are known to cause attacks: for instance, a person may say "I always get nettle-rash if I eat strawberries".

(2) *Remove the cause* if possible: this means that if the urticaria follows some form of food, a brisk dose of opening medicine should be given to clear the bowel.

(3) *Allay the irritation.* Calamine lotion, dabbed on

the affected parts, gives relief; or an antiseptic dusting-powder may be used, or one of the special ointments or applications prepared specially to counteract the condition.

People who are subject to urticaria may be benefited by a course of glucose.

## VACCINATION

In vaccination a mild eruption is caused upon the skin at the point of inoculation, and the effect is to confer immunity against small-pox. Vaccination as done now under aseptic conditions is free from harm or risk; the lymph, which is obtained from a similar eruption in healthy calves, is freed from all contamination and is perfectly safe to use.

The best age to vaccinate a baby is between two and four months: the child is then well established to its feeding, and has not yet begun to be bothered with its teeth.

For a few days after vaccination no sign is seen: then a redness appears around each point of inoculation, and by the end of a week a "vesicle" has formed, with some soreness and redness around it. If kept covered with dry boracic lint, and the skin dusted with an antiseptic dusting-powder, the vesicle will dry up and form a scab, which will have fallen away by the end of the third week leaving a scar or "vaccination mark" which remains throughout life as a witness that vaccination has been successfully performed.

## VARICOSE VEINS

These are veins in which the walls have become weak, with the result that the veins become stretched, enlarged, and tortuous. The valves which support the column of blood in the vein become ineffective, and the condition grows slowly more pronounced unless proper support is applied. The causes are:—



(1) Too long standing still. Standing still will act as a cause, while walking will not, because muscular action assists the flow of blood through the veins.

(2) Pressure. An example is the occurrence of varicose veins in pregnancy.

**Treatment.** Either by proper support (crêpe bandage or elastic stocking), or by surgical treatment.

(1) Proper support. The crêpe bandage, applied from the ankle upwards beyond the limit of the varicose veins, and put on before getting out of bed in the morning, is a comfortable and effective form of support. Crêpe bandages are washable, and are not so hot as elastic stockings.

(2) Surgical treatment, if bandages do not prove satisfactory. There are two kinds of surgical treatment; obliteration of the veins by injection, and removal of the veins by operation. A decision on this should be made by a surgeon in each individual case.

## VENEREAL DISEASES

Though outside the scope of domestic medicine, a brief reference may be made to venereal diseases.

These diseases are of two kinds: Gonorrhœa and Syphilis.

**Gonorrhœa** shows itself by a mattery discharge from the genital passages. Of course this is not the only cause of mattery discharge, but such discharge should lead the sufferer to seek medical advice without delay, as, whatever the cause, the symptom is distressing and should be cleared up.

Gonorrhœa may have serious after-effects, one of which is, in men, obstruction to the passage of water by stricture of the passage: in women inflammations of the pelvic organs may occur, and in the new-born baby an inflammation of the eyes and possible blindness may be the result of untreated gonorrhœa in the mother.

**Syphilis** shows itself by a hard sore on the part of the body to which the poison has been introduced. The sore heals in course of time; but the disease remains in the system, and manifests itself later in various forms, such as skin eruption, bone disease, and diseases of the nervous system and blood-vessels.

Special clinics are now provided for treatment, and treatment is confidential; and it cannot be too strongly urged that anyone who has contracted one of these diseases *should see a doctor at once*, or attend a Clinic.

## VERTIGO

Vertigo or dizziness may occur under many different circumstances.

In debilitated people it may occur on suddenly rising from a chair or on first getting out of bed in the morning; and it means no more than anæmia and a general loss of tone.

Dizziness may be a feature of biliousness, or of the type of sick headache known as migraine. (See p. 162.)

Attacks of sudden dizziness may be a feature of minor epilepsy, occurring at intervals, and associated with a loss of awareness of surroundings.

Dizziness is also a symptom of the disease of the internal mechanism of the ear known as Menière's disease, and is then, as a rule, accompanied by noises in the ear.

## WARTS

Warts are small hard excrescences on the skin. They are common in children, and especially on the backs of the hands. It is possible that they may be contagious.

**Treatment.** A course of small doses of Epsom salts will sometimes cause warts to disappear (say ten grains, or enough to lie on a sixpence, three times a day). In children a course of calcium may be useful.



For application to the warts some use the solid nitrate of silver (lunar caustic): this leaves an unsightly black stain for a time. Another application is the salicylic collodion which is used for corns.

Another form of treatment is to cover the warts with a waterproof adhesive plaster, to be changed daily.

Constipation must be attended to; and it is well to use a carbolic or coal-tar soap for washing the hands.

## WHITLOW

A whitlow is an inflammation in a finger, resulting in the formation of an abscess, and characterised by severe throbbing pain. The pain is particularly severe when the matter forms under the nail.

Treatment is by hot fomentations (boracic lint wrung out of boiling water) or a kaolin poultice to the finger: give an aperient dose, and relieve pain by means of an occasional tablet of aspirin or aspirin compound. Penicillin should be administered.

As soon as matter forms, the finger should be opened: for this a sharp surgical knife is used, sterilised (disinfected) by soaking in spirit or in a strong disinfectant solution. Boiling a knife blunts its edge.

The formation of matter may be seen by a tense swelling which feels fluid to the finger, or "fluctuates" to the touch of two fingers alternately pressed upon it; at the same time the skin is shiny and red, gradually turning to yellow.

## WHOOPIING COUGH

This is a long and troublesome complaint, easily passed on from one child to another. It is a disease of childhood. Adults are occasionally, though seldom, attacked, partly because many of them have had whooping cough in childhood, and partly because as the years pass people become less and less susceptible to infection by childhood's ailments. Second attacks are rare;



one attack confers protection; but it is not at all uncommon for a child who has had whooping cough to reproduce the same sort of cough, even with whoop, each time it has a cold during the year or two following the original attack.

Whooping cough begins like an ordinary cold; and this is the most infectious stage. A dry cough develops early, but it is not until eight or ten days have passed that the characteristic whoop develops. The "whoop" is a crowing indrawing of the breath after a series of spasmodic coughs: it might be represented thus—"cough-cough-cough-cough-cough-whoop". Except for the spasms of coughing the child is not usually very ill; the usual troubles are the exhaustion which follows the frequently repeated spasms, and the vomiting which the coughing causes. Bronchitis and convulsions are possible complications.

**Treatment.** Though the cough may be to some extent kept under control by sedative cough mixtures, there is no medicine which can be said to "cure" whooping cough. Fresh air is good; and the child should sleep in a well-ventilated room, and be out of doors by day if weather allows.

A fumigating lamp should be kept burning in the bedroom—a metal saucer supported over a night-light serves quite well—a teaspoonful of coal-tar inhaling fluid vaporised over the lamp produces a heavy tarry odour in the room, and does seem to allay the spasms of coughing. In mild cases the lamp may be kept alight for two hours before bedtime, placed a yard or so from the child's head, and safely out of reach so that it cannot be knocked over: in severe cases the fumigation may be continued all day and all night.

Treatment by a whooping-cough vaccine may be found useful, and this should be tried in any severe case—the earlier in the course of the disease the better.

**Contacts.** Whooping cough takes about a fortnight to show its first signs in children exposed to infection;



and it is usual to regard a child suffering from whooping cough as a possible carrier of infection for six weeks from the onset.

Contacts may obtain partial (or in some cases complete) protection by inoculation with the appropriate vaccine: a harmless and wise precaution.

## WORMS

For practical purposes the varieties of worms which may be found in the bowel are three: the thread-worm, the round-worm, and the tape-worm.

### Thread-worms.

These are very common, especially in children. The worms inhabit the large bowel, and may be seen as small white threads, half an inch long, in the motions passed. In any case of irritability in children, or if a child or a grown-up person has itching about the anus (the opening of the bowel), the motions should be inspected for worms daily for two or three days. Children get the eggs on their fingers by scratching, or swallow them on the skins of raw fruit.

Treatment is to give an aperient to drive the worms down, and after evacuation to wash the lower bowel out with warm salt water (a tablespoonful of salt to the pint) by means of an enema syringe. This should be repeated three times on alternate days.

The most effective treatment is by one of the preparations of piperazine in elixir form, given in the prescribed doses for a week.

White precipitate ointment (the ammoniated mercury ointment) should be smeared around the aperture of the bowel at bedtime; this not only stops itching, but is fatal to any worms which may make their way out.

Clean hands must be a rule.

### Round-worms.

These are not so common as thread-worms, but are an occasional cause of irritability, restlessness, and ill-health in childhood. It is alarming to see a worm, not unlike a garden worm, and several inches long, in the material evacuated from the bowel !

Treatment is to empty the bowel with an aperient, and then give santonin ; two grains for a dose in a child of two years or over. Mothers need not be worried if the urine is a bright yellow-green colour after santonin.

### Tape-worm.

This is a more serious and difficult trouble, as tape-worm may cause a good deal of anæmia and general ill-health. The tape-worm is a very long, flat worm, notched into segments, with a small head which fixes itself by suckers to the wall of the bowel.

Portions of worm, from a few inches to several feet long, may be passed from the bowel ; but as long as the head remains, new segments will grow.

Treatment is to get the bowel well emptied by aperients and starvation ; thirst may be relieved and strength maintained by water and meat extracts or other fluids.

After two days of this treatment a capsule of male-fern extract is given ; and twelve hours later a saline aperient. Treatment of tape-worm should be under medical supervision : the recognition of the head of the worm in the motions is essential to cure ; also the treatment is rather drastic, and leaves the patient feeling " washed out ".

## WOUNDS

The aim of treatment of wounds is to get good healing with as little scar as possible.

All wounds should be carefully cleansed by washing



in a warm disinfecting solution (such as Dettol), so that no particle of dirt remains to interfere with healing.

Then the cut or torn edges must be brought together as closely and neatly as possible. In surgical work this is done by stitches; but most of the wounds that come within the range of domestic treatment may be closed and dressed satisfactorily with one of the adhesive strip dressings which are sold. In all cases of wounds contaminated with road or garden dirt, anti-tetanus serum should be given by a doctor.

If the wound is clean, and the dressing is applied carefully, the dressing may be left unchanged for as much as a week, by which time healing will have taken place.

A wounded part should be rested : this allows healing.

Some throbbing pain is usual at first in a wound, but this should pass off after a few hours. Throbbing pain after the first day, especially with redness appearing beyond the limits of the dressing, means that some inflammation is going on, and the wound should then be re-dressed. Red streaks running up a limb from a wound should be painted with the weak tincture of iodine; and if the wound is found to be red and inflamed, a dressing of boracic lint wrung out of boiling water should be applied and penicillin given.

Bruised and lacerated wounds may have a dressing of warm boracic lint from the start. Another very good dressing for such wounds is lint soaked in eusol (a solution of boracic and bleaching powder).

A wound which is bleeding severely should be bandaged with sufficient pressure to control the hæmorrhage, but a tight bandage should not be left on for more than two or three hours; after that time the bleeding should have ceased, and a dry dressing can be applied.

Wounds which are very dirty, and therefore likely to be infected, should be dressed with eusol; and in the case of wounds contaminated with road or farm dirt it will be wise to have a dose of anti-tetanus serum given.

All small cuts and scratches should be painted with the weak tincture of iodine.

### X-RAYS

We sometimes wonder how we got on before the discovery of X-rays, so useful are they. Some of their uses are as follows: in diagnosis (finding out), and in treatment.

The bones of the body and the teeth, which are impervious to X-rays, are clearly shown on the photographic film; thus fractures and dislocations, and diseases of the bones and teeth, may be discovered.

But most of the soft parts of the body show little or not at all on the photographic plate; so they must be rendered opaque to the rays, as far as possible, before the X-ray photograph can be taken. For stomach and intestine this is done by giving something to swallow, as a barium or bismuth meal; for pictures of gall-bladder or kidney an opaque substance is injected into the blood-stream.

The chest can be pictured, in which case the bones are shown, and any great alteration in the lungs can be detected.

Various conditions are now treated by X-rays: it is sufficient to name only two here: these are, a number of forms of skin disease, and inoperable malignant growths. X-rays are often used after operations for malignant disease, to destroy any cancerous cells that may be remaining in the tissues.



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